

# Railway Age

APRIL 21, 1945

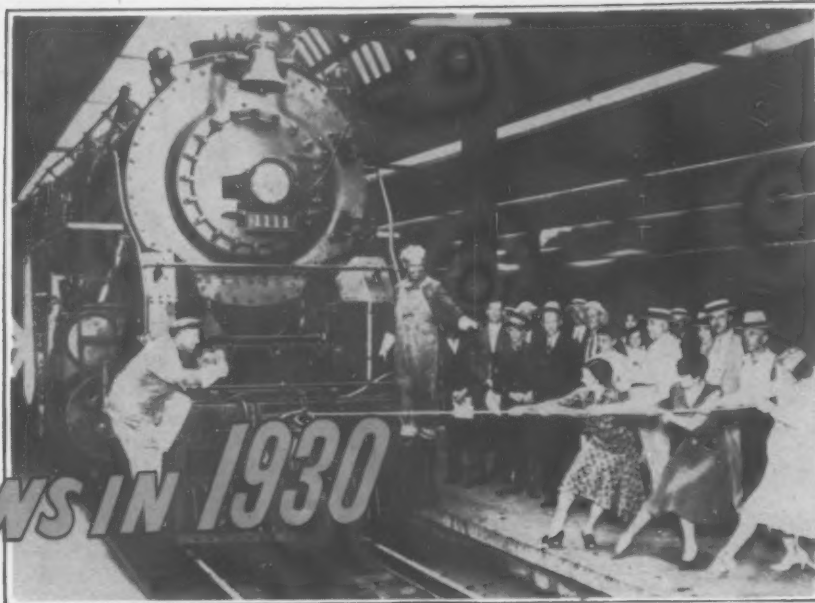
Founded in 1856

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SERIALS RECORD

August 15, 1930

THE PENNSYLVANIA NEWS (Western Region Edition)

## Three Girls Pull Huge Roller-Bearing Locomotive

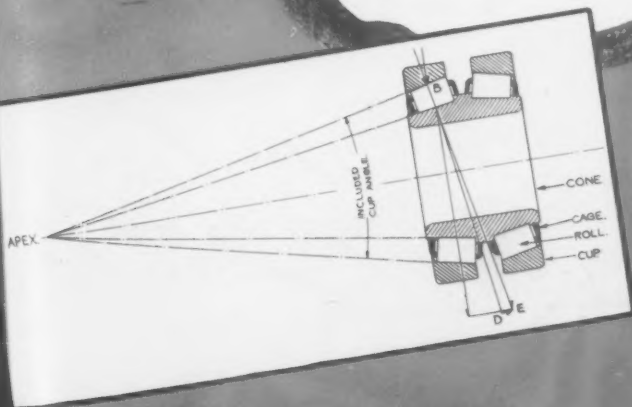


(Pennsylvania News Photo)

**NEW ENGINE IN TEST SERVICE**—When Timken roller-bearing engine No. 1111, which is now in test service on the Western region, was exhibited by the Pennsylvania Railroad in the Union station at Chicago on August 7, the new-style iron horse, weighing 111,500 pounds, was easily pulled by three young women employees of the general office, while the engineman and fireman cheered them on. The young women are, from left to right, Miss Mary Patterson, Miss Amelia Reuter and Mrs. Ramona N. Yergy. The engineman, on the left, is D. W. Evans, and the fireman is E. T. McGunn. The Timken engine was delivered to the Western region at Crestline on Aug. 3, after several weeks of experimental service on the Central and Eastern regions. On its first run into Chicago, drawing the Star Union Line, one of the limiteds of the freight service, the engine crews were as follows: Crestline to Ft. Wayne—J. F. Wagner, engineman, and G. H. Manry, fireman; Ft. Wayne to Chicago—N. A. Pettier, engineman, and R. J. Lighthill, fireman. No. 1111 will remain on the Western region several weeks.

Remember  
this  
Picture?

IT MADE NEWS IN 1930



It shows the world's first completely roller bearing equipped locomotive—the Timken Locomotive No. 1111—in a unique demonstration of its easy-rolling qualities. The photograph was made soon after the locomotive was placed in test service and attracted nation-wide attention and interest.

All Timken Bearing Equipped locomotives, cars and streamlined trains roll with the same characteristic ease because *true rolling motion* is a fundamental and inherent advantage of Timken Bearings. It is obtained by so tapering the rolls and races that lines projected along their surfaces meet at a common point on the axis known as the apex; this is illustrated in the diagram. Because of this feature, friction in the bearing itself is less than 1/2000 of the load imposed upon it.

**TIMKEN**  
TRADE-MARK REG. U. S. PAT. OFF.  
**RAILWAY ROLLER BEARINGS**

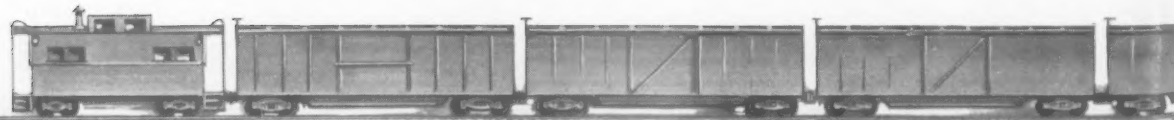
THE TIMKEN ROLLER BEARING COMPANY, CANTON 6, OHIO

# 15.89% more freight car miles per CHILLED CAR WHEEL in 1944



*I*n a year that saw wartime military travel continue at peak levels . . . that saw railroad freight traffic again measured in formerly unbelievable totals . . . car wheel performance was once more impressive. A recent compilation put the figure for 1944 at 106,510,000 freight car miles per wheel failure. This represents a gain of 15.89% over the corresponding statistics for 1943.

With an ever-increasing number of chilled car wheels in service, and with steadily-continuing large scale troop movements and furlough traffic, emphasis remains on high standards in wheel output . . . standards to which AMCCW manufacturers must adhere in order to maintain their membership in good standing.



**ASSOCIATION OF MANUFACTURERS OF CHILLED CAR WHEELS**

230 PARK AVENUE, NEW YORK 17, N. Y. • 445 NORTH SACRAMENTO BOULEVARD, CHICAGO 12, ILL.

Organized To Achieve: Uniform Specifications — Uniform Inspection — Uniform Product



## Round-the-Clock Carloading at Inland

Carloading and prompt dispatch of cars from the mill are important to Inland because they are important to Inland's customers. These round-the-clock jobs have been intensively studied, resulting in improved packaging and carloading despite full rolling schedules, shortage of some types of railroad equipment, scarcity of bracing, etc.

When an order is ready for shipment, cars of suitable types are ordered into the mill. Cars to be loaded with the product of one mill are spotted at that mill. When carloads are composed of products from two or more mills, loading is speeded by spotting a car at one mill and trucking

the products of other mills to the car. Throughout each hour of the twenty-four, expeditors keep steel flowing to loading points and as soon as cars are loaded, they are switched to the railroad yard where they are assembled for quick dispatch to our customers.

We invite you to confer with an Inland shipping specialist. He will gladly study your loading, unloading, and shipping problems, giving you all available assistance under the conditions of war, and helping you plan for speedier and more convenient delivery of steel for use in time of peace.

Bars • Floor Plate • Piling • Plates • Rail • Reinforcing Bars • Sheets • Strip  
Structurals • Tin Plate • Track Accessories

**BUY MORE  
WAR BONDS  
TODAY!**

# INLAND STEEL COMPANY

38 S. Dearborn St., Chicago 3, Illinois

Sales Offices: Cincinnati • Detroit • Kansas City • Milwaukee • New York • St. Louis • St. Paul



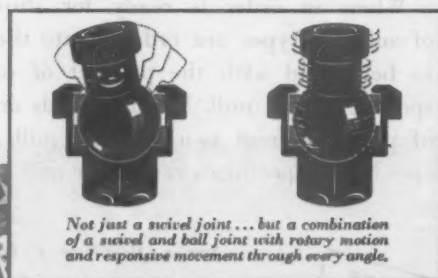
# FOR THE ARTERIES OF PRODUCTION

THE ALMOST INDISPENSABLE

## BARCO

FLEXIBLE JOINTS

Fluids—oil, gasoline, water, steam—are the very life-blood of America's vast production program. And everywhere throughout industry and transportation, Barco Flexible Joints protect the arterial system which conveys these liquids and gases against vibration, impact and shock. For over 30 years, Barco has led in its field... developing flexible joints for every need. Write for catalogue to the Barco Manufacturing Company, Not Inc., 1800 Winnemac Avenue, Chicago, 40, Ill.





# MAGOR



## *Designers and Manufacturers of Freight Cars of all Types Including Air Dump Cars*

Magor Freight Cars are consistent revenue producers. Special attention to details in design and skillful workmanship assure carriers of long life dependable freight equipment. Magor facilities are capable of producing all types of freight cars of modern construction. Let us bid on your requirements.

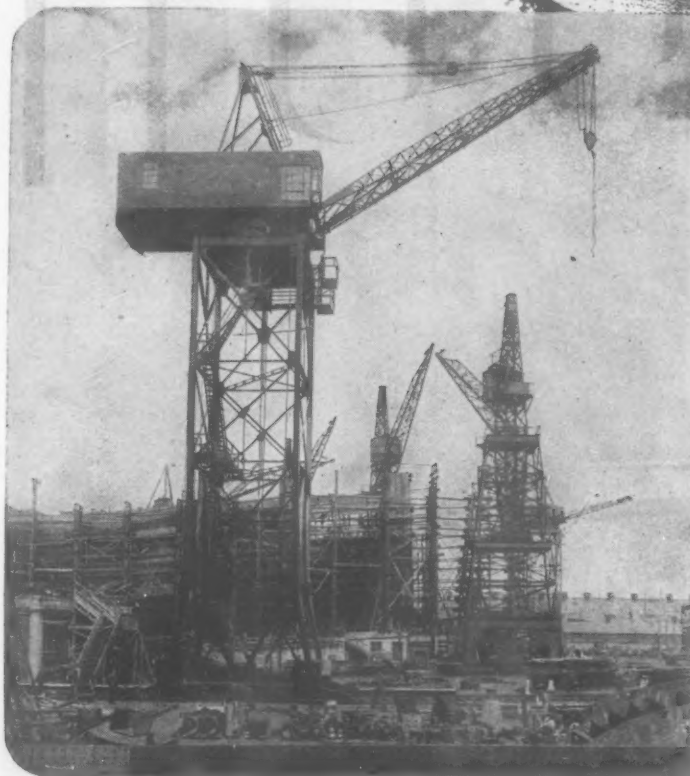
# MAGOR CAR CORPORATION

50 Church Street

New York 7, N. Y.

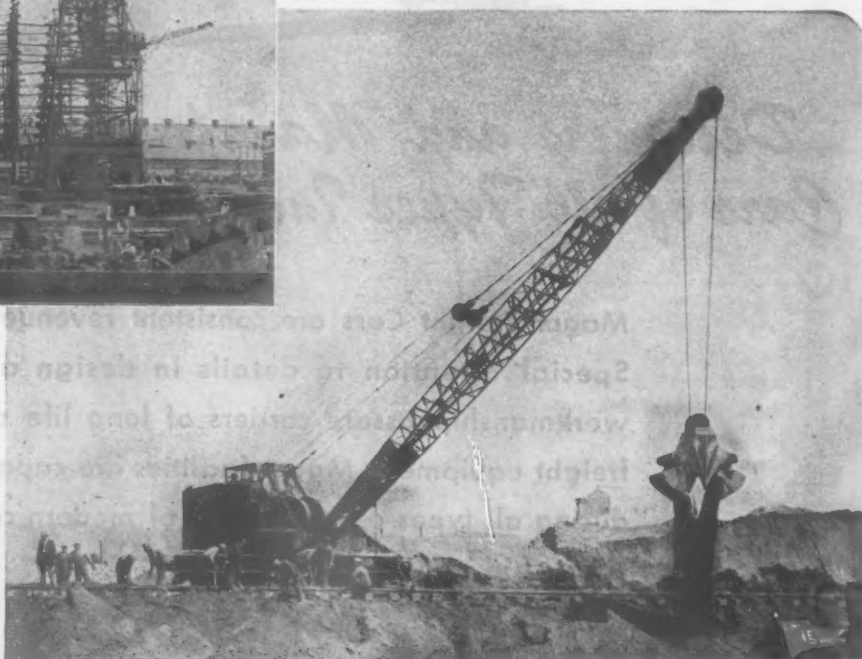
# I.B. EQUIPMENT LENDS WINGS TO VITAL MATERIALS

COAL, ORE AND MATERIALS OF ALL KINDS ARE  
MOVED, STORED, LOADED AND UNLOADED IN A  
HURRY WITH INDUSTRIAL BROWNHOIST EQUIPMENT



Bulky materials of every description are quickly moved by I.B. Cranes. Above: an electrically operated I.B. Tower Crane (20 ton capacity at 60 foot radius) helps set production records at an eastern shipyard. Right: Note the patented Monitor-type cab which allows the operator 360° visibility on I.B. Gas or Diesel locomotive cranes.

Today's accelerated production pace calls for efficient material handling. Tomorrow, as the world settles down to the gigantic job of rebuilding, the demand may be even greater. For swift, low cost operation Industrial Brownhoist equipment is unsurpassed. I.B. cranes and bridges and car dumpers and pile drivers are designed and built to stand up on the job with only the barest minimum of maintenance. For efficient material handling—in war or peace—get the facts on how I.B. equipment can help solve your problems.



**INDUSTRIAL BROWNHOIST BUILDS BETTER CRANES**

INDUSTRIAL BROWNHOIST CORP. • BAY CITY, MICH. • District Offices: New York, Philadelphia, Cleveland, Chicago • Agencies: Detroit, Birmingham, Houston, Denver, Los Angeles, San Francisco, Seattle, Vancouver, B.C., Winnipeg, Canadian Brownhoist Ltd., Montreal, Quebec.



## REUNION AT TEXARKANA

**Eight-months-old Laddie Dorsey** and mother were bound from Detroit to a soldier camp in Abilene, Texas, to let Laddie's dad, Melvin Dorsey, have his first look at his son.

In good time, the Missouri Pacific brought them to Little Rock, Arkansas, where Mrs. Melvin Dorsey left her son in the care of a fellow passenger, dashed into the station for a bottle of milk, dashed out—and onto a train bound for Pine Bluff!

**While Laddie's train rolled** southwestward toward Texarkana, and the terrified Mrs. Dorsey's rolled southeastward toward Pine Bluff, Mrs. Dorsey's train conductor heated up the wires to Little Rock, Pine Bluff, and Texarkana.

Laddie, in a kindly stranger's care, blissfully arrived the next morning at Texarkana where Chief Clerk L. H. Bordelon and Mrs. Bordelon took charge of the infant passenger. They also introduced the young guest to their two-year-old son, Frankie.

**Mrs. Bordelon bathed and dressed** the little newcomer, and he soon found himself, very much at home, sitting in Frankie's high chair—eating oatmeal, yolk of egg, and strained fruit.

Then, neighbor Jim Sullivan, also of the Texarkana's Missouri Pacific traffic office, came in with a few extra bottles and nipples with the compliments of a three-weeks-old Sullivan infant. Mrs. Bordelon didn't find it difficult to remember the ingredients of a formula for an eight-months-old, nor did this son of a soldier find it hard to take.

**The frantic Mother Dorsey**, catching a bus back to Little Rock, was calmed with the promise that Laddie was traveling the 150 miles to Texarkana in good railroad hands.

At 3 the next afternoon, at Texarkana, Mother Dorsey and son had a happily tearful reunion. To Mrs. Dorsey's heartfelt thanks, Mr. and Mrs. Bordelon responded: "Any one of the 45,000 members of the Missouri Pacific family would gladly have done the same."

—The Trackwalker\*



The Alco 4-cycle engine is one of the distinctive features of Alco-G.E. diesel-electrics which keep their maintenance cost low throughout long operating life. As an example, this engine has a reversal of load which produces thorough lubrication and virtually eliminates piston-pin trouble.



**AMERICAN LOCOMOTIVE • GENERAL ELECTRIC**

Copr., 1946, American Locomotive Company and General Electric Company

\*Reg. U.S. Pat. Off.

119-121-0600



# Paper Sorting "HI-BALLED!"

...railroads get new speed and accuracy with  
**MULTISORT**



**1** WAYBILLS ARE SORTED as soon as received, kept in Multisort "live" storage in the general freight offices of a leading Western railroad. Chief advantages: instant availability, protection against loss, labor economy.

**2** OPEN AND CLOSED PURCHASE orders, storekeepers' requisitions, commissary invoices, outgoing mail are among records Multisorted in large Chicago terminal.



**3** 6000 CANCELLED CHECKS a week are sorted by department and serial number in half the time required with table sorting.

**4** 900 TRAIN REPORTS daily are now sorted in 50% less time for use in preparing statistical reports and recording location of passenger cars. User is prominent Eastern system.



● As these samples indicate, Multisort can speed up operations and save labor costs in any railroad department where large volumes of paper are handled. This system presents the fastest known method of sorting papers into numerical or alphabetic or other sequence.

Faster, more accurate sorting speeds routine all along the line. With Multisort, papers may be filed as soon as

they are received. Thus they are available for instantaneous reference, and cannot blow away or become mislaid.

Fatigue is also reduced with Multisort. Gliding on ball bearings, the dividers easily move back and forth into

convenient position opposite the papers being sorted. This eliminates waste motion, conserves energy.

**FULL DETAILS** and specifications are contained in folder LB-287, available free from our nearest Branch Office.

SYSTEMS DIVISION

**REMINGTON RAND**

Buffalo 5, New York

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DO ALL  
MAKES SHOE  
9 1/3 TORCH AND TIME  
SHAPER

boiler

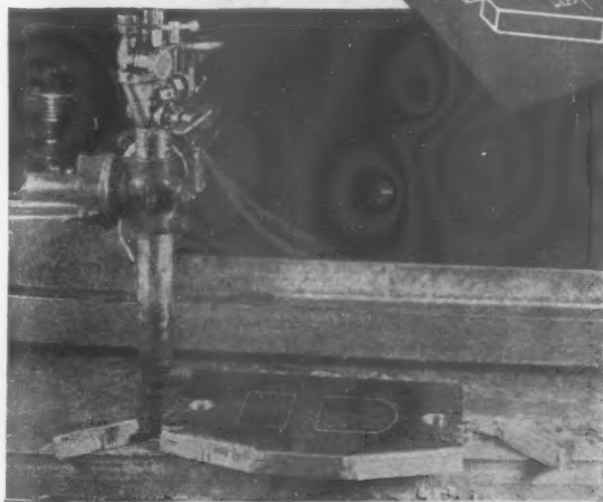
An acetylene oxygen gas torch cut the shoe in less time, but the burnt edges then had to be machined—the two operations requiring three times as long.



Another thing, the torch will not cut non-ferrous metals, aluminum, brass, cast iron, bakelite, fibre products—the DoALL will. The torch is impracticable for tool steel shapes, which the DoALL handles easily.

**Yes, DoALL cuts them all — today's most modern and rapid machining method. Does both internal and external cutting, following straight or contour lines accurately and without metal waste.**

**DoALL Advantages over 10 Basic Cutting Methods are shown in pictures in a new booklet. Write for copy today.**



## INDUSTRY'S NEW SET OF TOOLS

**CONTINENTAL MACHINES, INC.**

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Sales & Service Offices: Baltimore, Birmingham, Boston, Chicago, Cincinnati, Cleveland, Dallas, Dayton, Denver, Detroit, El Paso, Erie, Grand Rapids, Hartford, Houston, Indianapolis, Kansas City, Los Angeles, Milwaukee, Minneapolis, New York, Orlando, Philadelphia, Pittsburgh, Providence, Reading, Rochester, Rockford, St. Louis, San Francisco, Seattle, Statesville, Syracuse, Toledo, Tulsa.

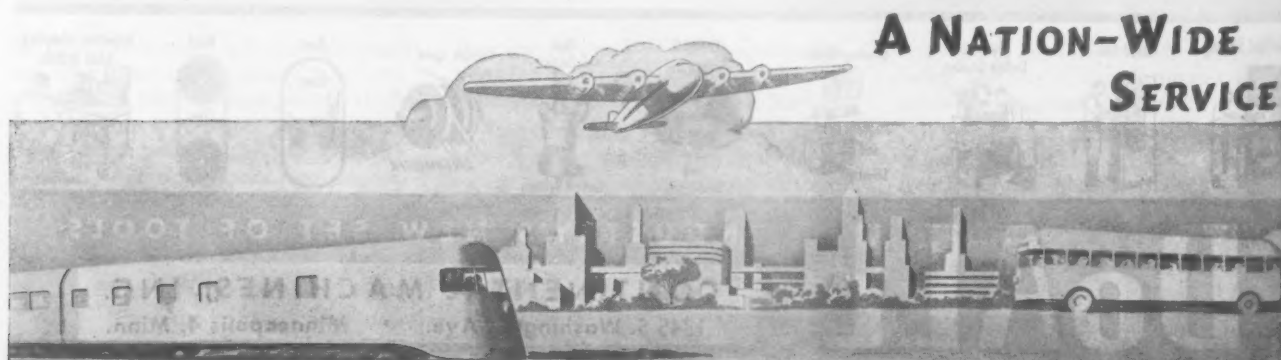


As the *key* to the lock . . . as the *lock* to the locker . . . so is the modern *parcel locker* to streamlined transportation! They fit. They go together. Self-service parcel lockers add to the sum total of good will and appreciation which the travel-wise traveler of today has for the marvelous service of the transportation companies. He looks for this convenient, safe, time-saving service wherever he stops for an hour or a day . . . it's the modern way and the key is his check. . . . no waiting in line. . . . our consultants are ready to confer with you immediately

without obligation regarding the installation of lockers, or their inclusion in your plans for renovation or new building. May we make a survey and draw up recommendations on this same no-obligation basis?

**AMERICAN LOCKER COMPANY, Inc.**  
211 CONGRESS ST., BOSTON 10, MASS.

BOSTON	NEW YORK	PHILADELPHIA	PITTSBURGH
ATLANTA	CLEVELAND	CHICAGO	DALLAS
			LOS ANGELES



**TRAVEL-WISE TRAVELERS LOOK FOR PARCEL LOCKERS FIRST**

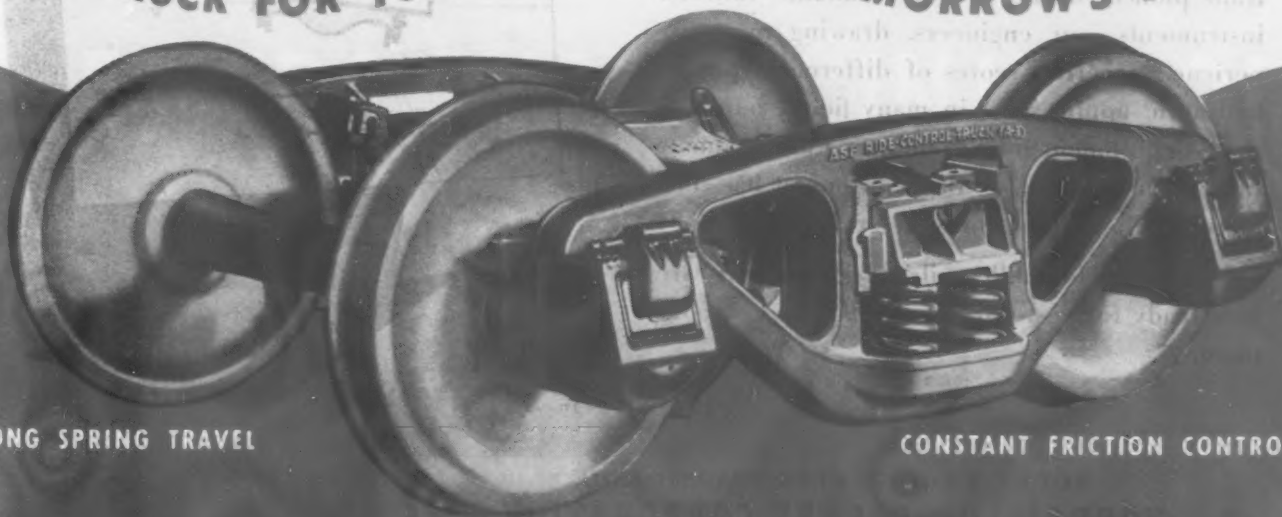


# Ride-Control

## GETS ALL THE "GIVE" FROM COIL SPRINGS!

Coil springs give a smooth, easy ride when used with the A.S.F. Ride-Control Truck (A-3). They develop their best riding qualities because the unique principle of constant friction that controls them does not perceptibly interfere with their softness when absorbing impact—does not materially affect their cushioning qualities. It *does* enable coil springs to develop their best riding qualities.

THE TRUCK FOR TODAY'S NEED . . . TOMORROW'S SPEED!



LONG SPRING TRAVEL

CONSTANT FRICTION CONTROL

### AMERICAN STEEL FOUNDRIES

CHICAGO

NINE-MARK 87

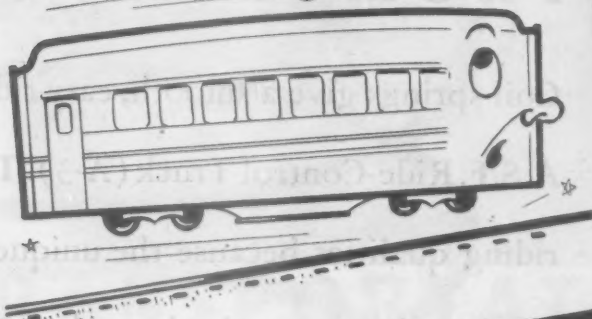


FIVE MARK STEEL

LATERAL CONTROL?  
VERTICAL CONTROL?

**HOUDAILLE** has *Both*

for the  
**UP AND DOWN  
JOUNCE**



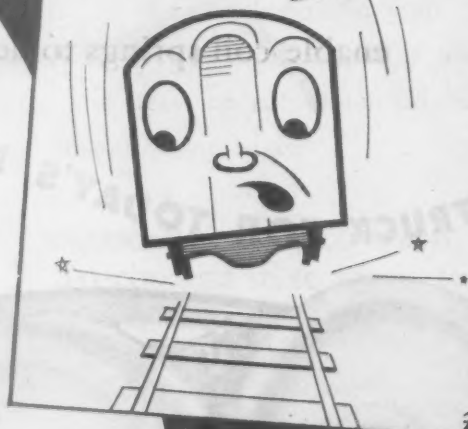
The "up and down jounce" is one thing. The "side to side lurch" is another.

Houdaille\* has vertical and lateral Hydraulic Shock Absorber installations for controlling both movements. Control can be double-acting or "one-way" to meet specific conditions.

Since 1934 when the world's first streamline train pioneered the use of Houdaille railroad instruments, our engineers, drawing upon experience covering scores of different types of hydraulic applications in many fields, have designed equipment for the country's most famous trains. In many cases this equipment has seen more than a million miles of service.

Improved Houdaille railroad instruments are now ready for post-war planning. Ask us about them.

for the  
**SIDE to SIDE  
LURCH**



\*Pronounced—Hoo-dye

HOUE ENGINEERING DIVISION OF  
**HOUDAILLE-HERSHEY CORPORATION**  
MAKERS OF HYDRAULIC CONTROLS  
BUFFALO 11, NEW YORK





**Doing a Better Job  
on America's Most Important  
Railroads**

# SELLERS TYPE "S" INJECTOR

Make a comparison of design and operating principles and you'll convince yourself that the Sellers Type "S" is years ahead of old style conventional injectors.

Chief among its advantages are safety and convenience for the engineer... Instead of groping around for two or three valves he controls all functions of the injector with a single lever—simple as an automobile hand-brake. There is nothing to take his hand off the throttle or his eyes off the road.



**WILLIAM SELLERS & COMPANY**  
1631 Hamilton Street, Philadelphia, U. S. A.

**Make a note of these  
exclusive features:**

- Lowest cost for injector renewals and labor
- Minimum loss of water when starting and stopping
- No water hammer or bulging steam lines
- Located far above rails, free from roadbed hazards
- Permits complete drainage of tank when necessary

*Glad to send you complete  
technical information.*

**PRECISIONEERING SINCE 1848**

**SELLERS**



# TOUGH TEST FOR N-B-M BEARINGS



**W**hen Winter's bitter blasts chill lubrication, N-B-M Bearings show the stuff they're made of . . . tough enough to overcome common winter failures and to keep operating efficiently in coldest weather.

Summer's ahead now, but it pays to remember that another winter will be coming soon. In winter blast or summer heat, N-B-M Bearings will ease your "weather worries" and give you maximum operating efficiency.



**N • B • M**  
JOURNAL AND ENGINE BEARINGS

## NATIONAL BEARING

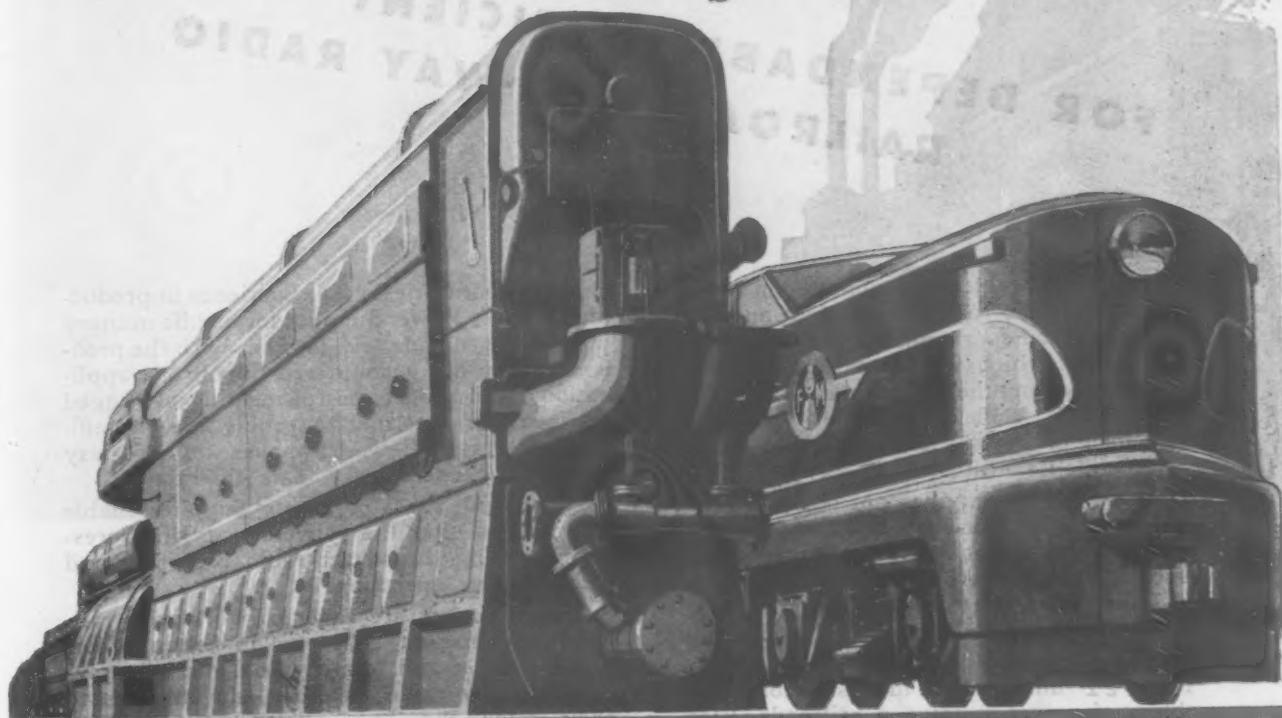
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ST. LOUIS • NEW YORK



PLANTS IN: ST. LOUIS, MO. • PITTSBURGH, PA. • MEADVILLE, PA. • JERSEY CITY, N. J. • PORTSMOUTH, VA. • ST. PAUL, MINN. • CHICAGO, ILL.

*Tomorrow's*  
**POWER**  
*Today!*

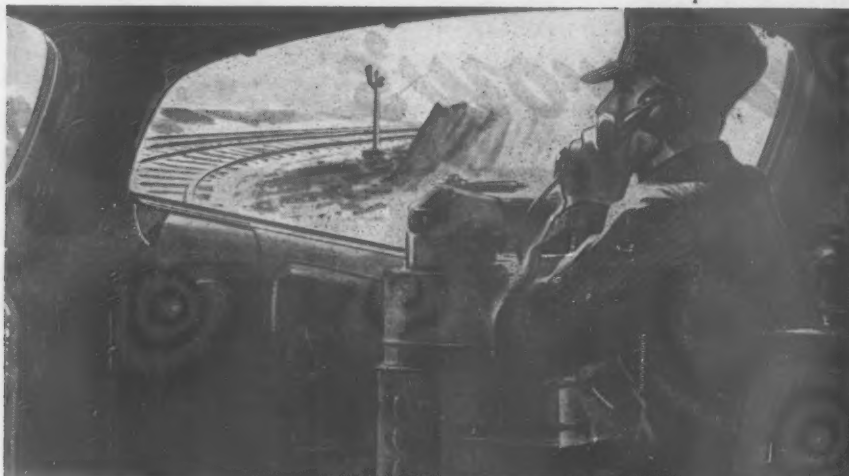


It's the Opposed-Piston Diesel Locomotive by

**FAIRBANKS-  
MORSE**

*A name worth remembering*





## FOR DEPENDABLE, EFFICIENT RAILROAD TWO-WAY RADIO

• One of the big problems encountered in adapting two-way radio for greater safety and efficiency in railroad operation, has been a suitable power supply which will operate dependably and efficiently from the power source of the railroad. Now, this problem has been solved by the development of special Vibrator Power Supplies by Electronic Laboratories.

Vibrator Power Supplies not only offer the greatest operating efficiency, but they last much longer and require practically no maintenance or attention. They convert any input voltage—32 volts DC, 64 volts DC, 110 volts DC, or any other voltage—to the voltage required for operation of communications equipment.

These *EL* units are the ideal solution to the problem of power supply on railroads. Elec-

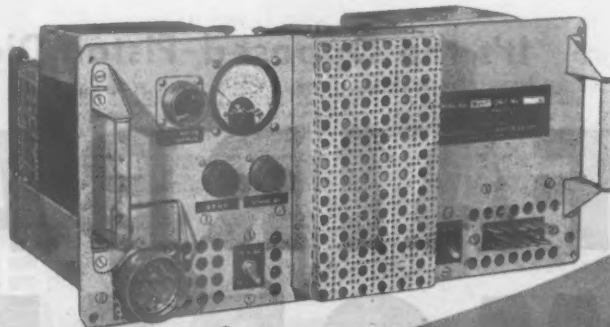
tronic Laboratories' vast experience in producing Vibrator Power Supplies for mobile military purposes has made *EL* familiar with the problems which are encountered in railroad applications, and the successful meeting of rugged war requirements means trouble-free and efficient Vibrator Power Supplies for two-way radio communication systems on trains.

Other *EL* Vibrator Power Supplies enable railroads to offer the conveniences of fluorescent lighting, broadcast radio reception and electric razor operation.

*EL* engineers are eager to work with railroad development engineers in solving their power supply and related problems in applying two-way radio or other conveniences to their trains.

### Standard Power Supply Model SC-1096

Model SC-1096 is a typical *EL* Vibrator Power Supply which may be adapted for railroad radio use. This unit was designed for the Canadian Signal Corps to operate radio transmitters. Input voltage: 12 volts DC or 110-117 volts AC at 50-60 cycles. Output voltage: 2000 volts at 125 ma., 400 volts at 25 ma., 250 volts at 10 ma., 10 volts at 5 amps, 12 volts at 1 amp.



# Electronic

LABORATORIES INC.  
INDIANAPOLIS



VIBRATOR POWER SUPPLIES FOR LIGHTING, COMMUNICATIONS, ELECTRIC MOTOR OPERATION • ELECTRIC, ELECTRONIC AND OTHER EQUIPMENT





## MOVE LONG RAIL *with simple equipment*

● The long length of oxy-acetylene pressure-welded rail as you see it above is supported on pushcars and buggies at 80-ft. intervals and is being drawn by two motor cars. It is on its way from the welding yard to its final position in track. To handle it required only a 10-man section gang. No locomotives, no cranes, and no flatcars were necessary.

Such improved and simplified methods of transporting continuous rail of almost any desired length have resulted in substantial savings in equipment and man-hours. This has become important because oxy-acetylene pressure-welded rail is now used extensively in open track as well as through heavy-maintenance sections such as bridges, tunnels, and street crossings.



Pressure-welded rail is continuous. End batter therefore is eliminated and there is no need for joint maintenance. Plan your pressure-welding program now. Any Oxweld representative will be glad to help you.

### THE OXWELD RAILROAD SERVICE COMPANY

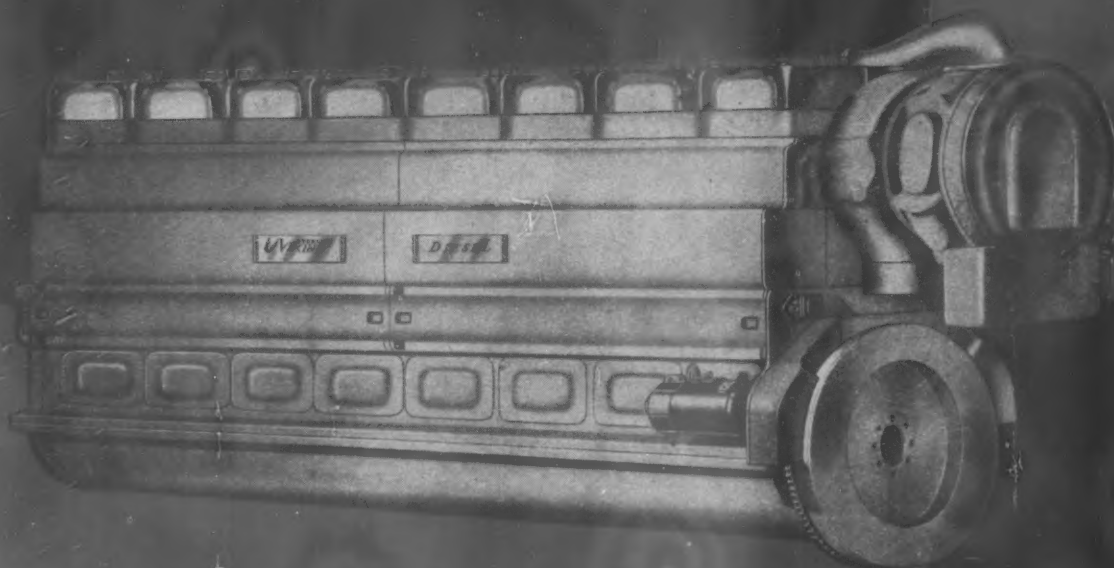
Unit of Union Carbide and Carbon Corporation



Carbide and Carbon Building Chicago and New York



SINCE 1912—THE COMPLETE OXY-ACETYLENE SERVICE FOR AMERICAN RAILROADS



FOR COMPACT, RUGGED POWER

## DIESELS *by Sterling*

★ Here's rugged power with a heritage of nearly half a century's experience in building dependable engines for practically every type of industrial assignment.

The advanced engineering design of the Viking Diesel makes it as compact as a gasoline engine of same power rating besides offering the economical advantages of diesel fuel.

It is the newest type of a dependable power plant for operating: rail cars; engine driven generator sets; compressors; pumps; snow plows and other railroad equipment where reliable continuous duty or stand-by power is essential.

Sterling Viking Diesels are now on the production line. Our engineers are ready to make a study of your power needs. Write without obligation for complete technical information.



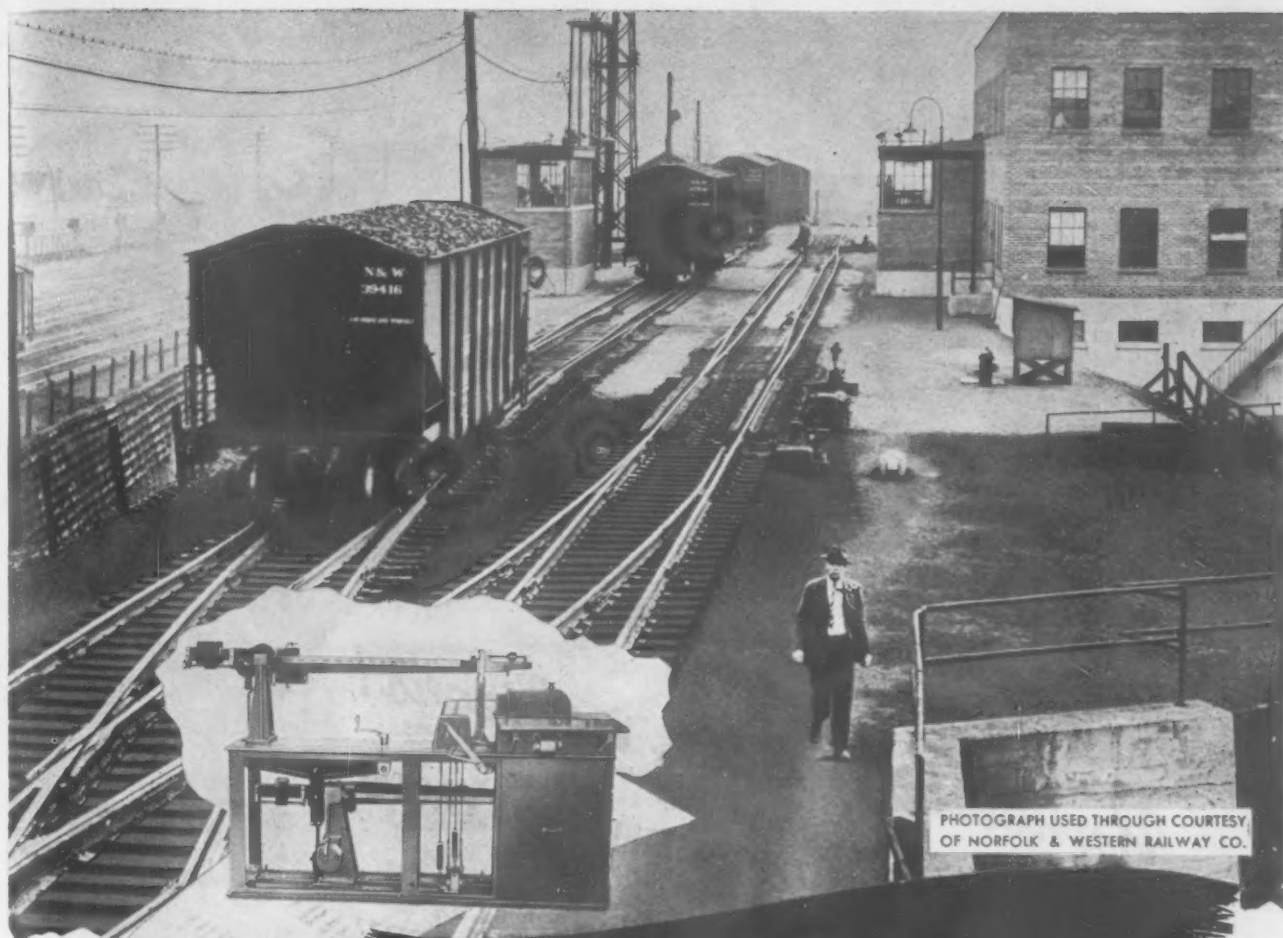
Sterling Viking Diesel Engines from 165 to 650 hp.—Sterling Gasoline and Gas Engines from 75 to 1800 hp.

"KEEP BUYING WAR BONDS"

# STERLING VIKING DIESEL

STERLING ENGINE COMPANY, 1277 NIAGARA ST., BUFFALO 13, N. Y.

Offices in New York, Washington and Chicago



## WEIGHING 4 CARS PER MINUTE

**Y**ES . . . sometimes five cars a minute are weighed at this scale house equipped with Streeter-Amet Automatic Weight Recorders. Such performance eliminates potential bottlenecks at the scale . . . keeps cars rolling at critical times when they may pile up.

A vital question in railroading is "How many cars can be handled in five minutes, or 15 minutes?" . . . when crews and power are available. Not how many in 24 hours. The Streeter-Amet weight recording equipment answers this question in terms of both speed and economy. Shippers get faster service; the road gets additional profits, enabling it to build up better postwar service for more postwar shippers.

Now is the time to install economy of operation for the days to come and the Streeter-Amet Recorder should be number 1 in a program of low cost operation. As for service, a Streeter-Amet service man goes along with every recorder. A survey of your weighing methods is available now; write or call us for free engineering service.

# STREETER-AMET

### STREETER-AMET COMPANY

4109 N. Ravenswood Ave. • Chicago 13, Ill.

Automatic Weighers, Recorders, Scales and Services • Founded 1888



*The Biggest  
Upholstery News in Years!*

EXCLUSIVE "PURATIZED" FINISH NOW PROTECTS

**Velmo**  
T. M. Reg. U. S. Pat. Off.

MOHAIR

TRANSPORTATION UPHOLSTERY

AGAINST DESTRUCTIVE BACTERIA AND FUNGI,

MAKES VELMO "cleaner than the eye can see"

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*This*  
CHASE **Velmo** MOHAIR  
T. M. Reg. U. S. Pat. Off.  
TRANSPORTATION UPHOLSTERY



*"Cleaner than  
the eye can see!"*

Always alert to improve Velmo Mohair and to increase its life and serviceability, our Research Laboratory worked on bacteriostatic finishing-treatments for over three years!

Now, every yard of Velmo Transportation Mohair is being treated with "PURATIZED"... given an exclusive finish that inhibits the growth of bacteria and fungi...minimizes the likelihood of spreading infectious bacteria... contributes to longer upholstery life.

You can't see the difference in improved Velmo Mohair... nor feel it! But actually its surface has been made bacteriostatic... made "cleaner than the eye can see."

Remember Velmo Transportation Mohair alone offers this advantage in transportation upholstery. Look for and read the blue-and-yellow tag now attached to every roll of Velmo Transportation Mohair. It's assurance that your new Velmo Upholstery has been treated with "PURATIZED".

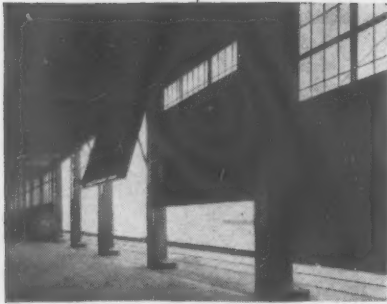
**Velmo**  
T. M. Reg. U. S. Pat. Off.

MOHAIR

TRANSPORTATION UPHOLSTERY



L. C. CHASE AND COMPANY  
DIVISION OF GOODALL-SANFORD, INC.  
295 FIFTH AVENUE, NEW YORK 16  
BOSTON • DETROIT • CHICAGO • LOS ANGELES



Truscon Lift-Swing Steel Doors



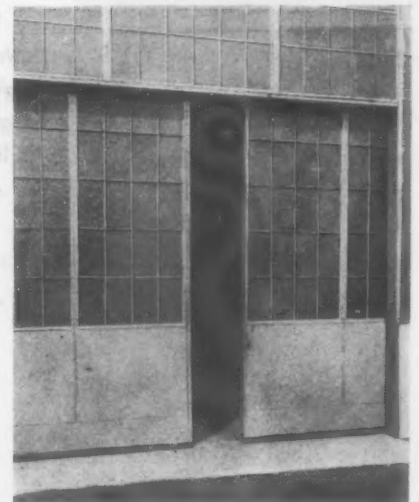
Truscon Vertical-Lift Steel Doors



Truscon Swing and Slide Light Industrial Steel Doors



Truscon Accordion-Type Steel Doors



Truscon Industrial Steel Doors for Large Openings

(Not Available Until After the War!)

## TRUSCON STEEL DOORS

*for every Postwar railroad need!*

Illustrated here are the basic types of Truscon Steel Doors, which will be available when our wartime obligations are fulfilled.

These doors embody light-weight construction of strong steels, according to designs that meet efficiently the special needs of the particular jobs for which they are intended.

Adequate stiffness without excessive weight; great torsional strength; permanent rigidity and freedom from sagging; snug fit; easy-operating mechanism for hand or mechanical power; weathertightness; long life in heavy duty—these are some of the Truscon Steel Door advantages that assure economy and satisfaction to you.

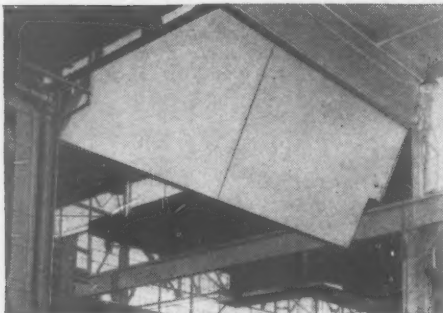
Ask our experienced engineer to help you efficiently adapt Truscon Steel Doors to any of your postwar needs.

TRUSCON STEEL COMPANY • YOUNGSTOWN 1, OHIO  
Subsidiary of Republic Steel Corporation

# TRUSCON

## STEEL DOORS

*Help Speed the Nation's Traffic*



Truscon Crane Steel Doors



Truscon Canopy Steel Doors



Truscon Turn-Over Steel Doors





# GUESSWORK

can be right, but

# TESTING

can't be wrong!

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W&D 9489

April 21, 1945

23

# SAFETY & COMFORT



## HIGH SPEED



### A.A.R. TIGHTLOCK COUPLERS

Eliminate slack in coupler contour.

Eliminate noise caused by coupler slack.

Interlocking feature prevents telescoping and turning over of cars.

Improved anti-creep arrangement, and A. A. R. No. 6 operating mechanism prevents train separation.

Will couple with present standard and M. C. B. type couplers, and when so coupled provides substantial reduction in contour slack.

Wear of coupler head and parts is materially reduced, thus increasing the service life.



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## Technical and Plant Service

### *Right in Your Territory!*



Glidden has always regarded America's railroads as its No. 1 customer. Consequently we have carefully planned a paint service to railroads that has met with widespread acceptance and success.

One important feature of Glidden railroad paint service is the strategic location of its plants, making possible overnight service. At each of these strategic points

we have experienced technical men and ample facilities for research and manufacture—all ready to give you prompt and efficient service. Another Glidden service is the famous "TWO-A-DAY" paint plan which is saving hours, dollars and man-power for the railroads.

Call or wire Glidden National Headquarters or your nearest Glidden plant for expert help on any paint problem.

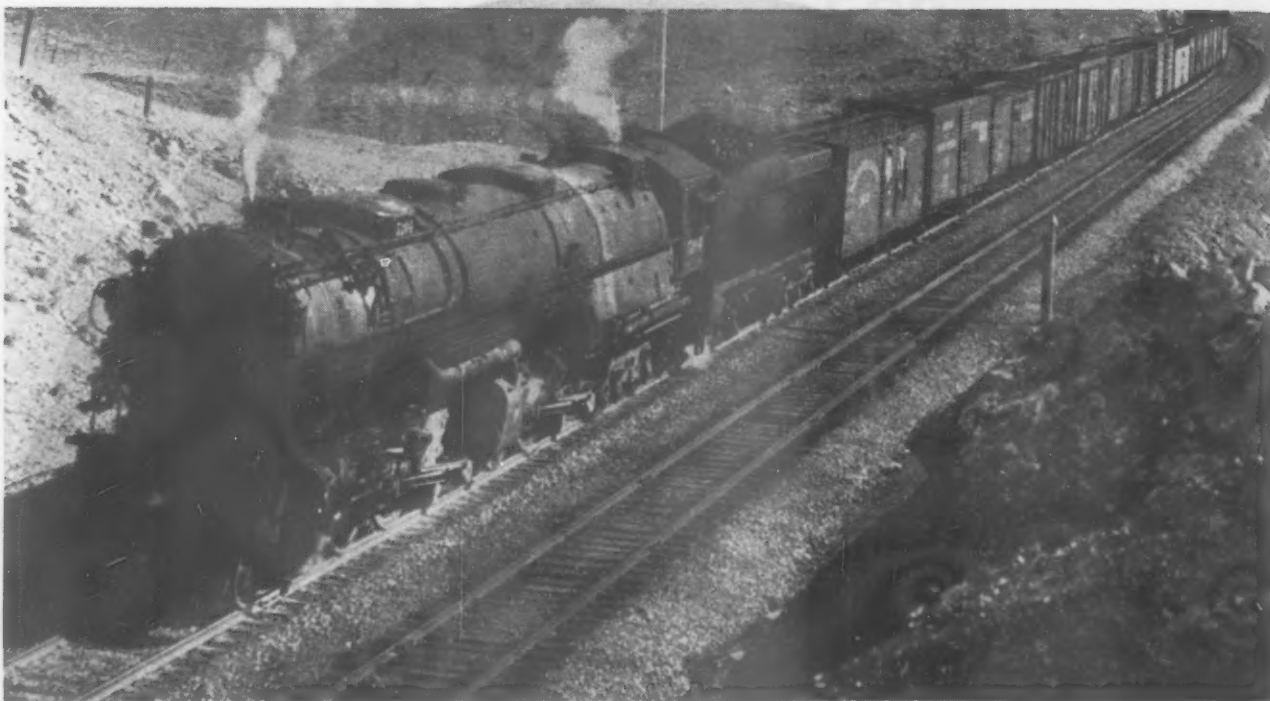


THE GLIDDEN COMPANY • Cleveland 2, Ohio

# GLIDDEN

*Pacemaker in Paints*





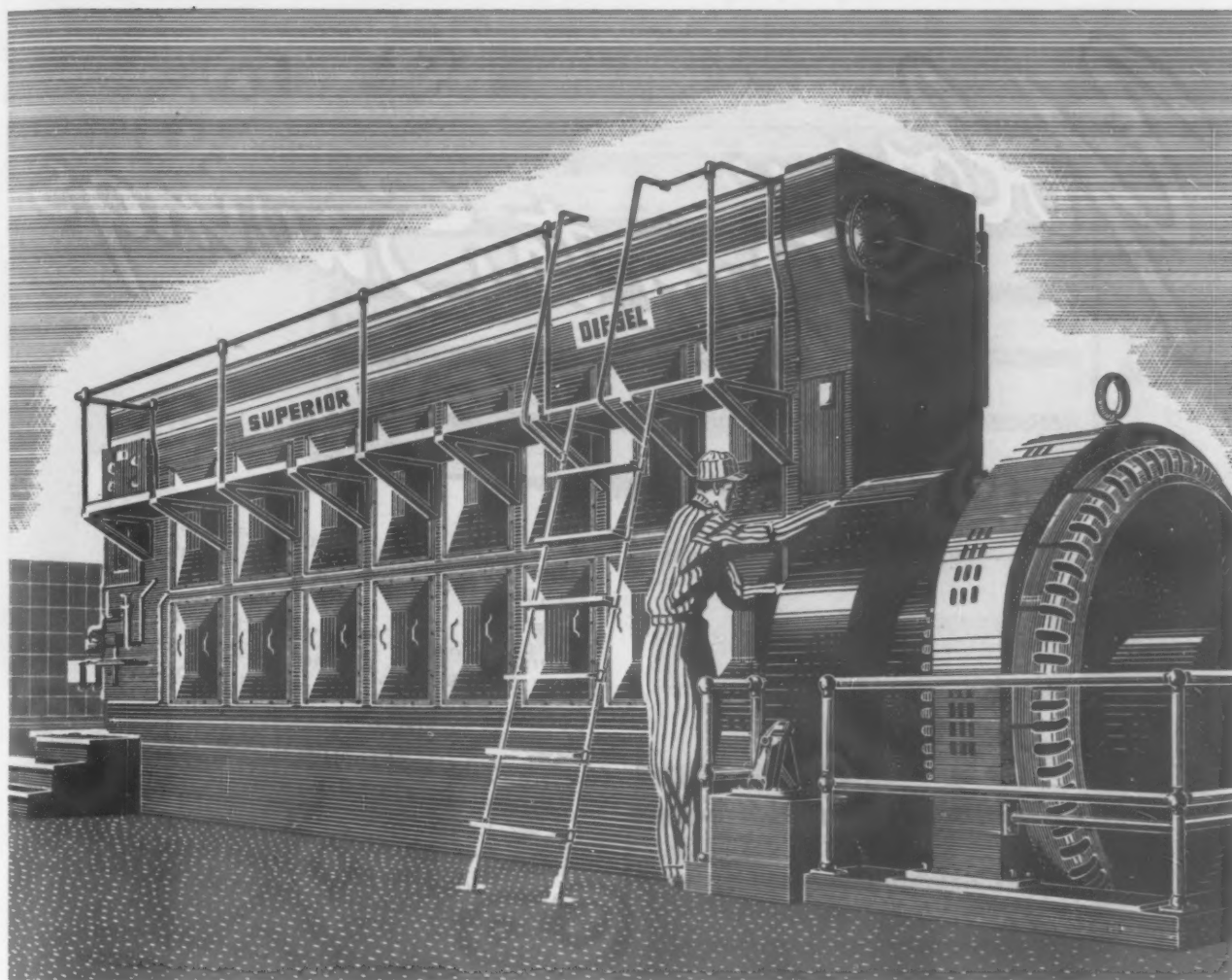
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Equipment and Track with



# Barber Stabilized Trucks

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**STANDARD CAR TRUCK COMPANY**  
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**Saving Weight**--Yoloy doors save 20% to 25% of the weight of ordinary steel doors.

**Saving Corrosion**--Yoloy doors are long lived. This high-strength nickel-copper steel has an outstanding record of corrosion resistance.

**Saving Time and Tempers**--Yoloy doors operate more easily and smoothly. They keep their shape because of lighter weight and their ability to take abuse, due to an amazing resistance to impact, shock, vibration and abrasion.

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Specify Yoloy doors for new cars to be built as well as for modernizing your old cars. Investigate the advantages of Yoloy doors NOW. Write for complete information on Yoloy high tensile steel.

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### THE YOUNGSTOWN SHEET AND TUBE COMPANY

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Manufacturers of

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Car door as pictured above was fabricated from Youngstown Yoloy high tensile steel by The Youngstown Steel Door Company, Youngstown, Ohio.





## COUNT ON EASIER, FASTER MAINTENANCE of tomorrow's Air Conditioning Equipment

SCHEDULED FOR LONGER RUNS with less off-the-road time, the car of tomorrow won't be available as often or as long for maintenance and inspection of auxiliary equipment.

Keeping this in mind, Sturtevant Engineers have developed new designs for easier-to-maintain air conditioning equipment. There's the new Sturtevant 3-piece system, for example, ready for you as soon as conditions permit, and offering these time-saving features:

### FASTER SERVICING

The separate condenser unit has a removable panel which permits easy checking of equipment inside. Your servicemen can quickly check the quantity of Freon in the receiver, take care of brushes on the condenser motor, operate the hand test switch and adjust hi-lo pressure cut-outs when necessary. And time is saved, too, during pumping down operations.

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**B. F. STURTEVANT COMPANY**  
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### LOOK FOR—AND GET These Sturtevant Air Conditioning Advantages:

- 1 More uniform temperature and humidity conditions in the car.
- 2 Equipment designed for easy maintenance.
- 3 Equipment designed for minimum space and weight.
- 4 Equipment that requires a minimum power load.

**Sturtevant**  
*Puts Air to Work*

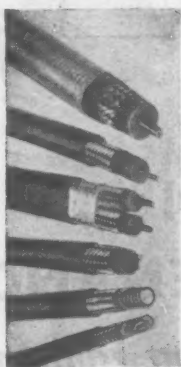
STURTEVANT "Railroad" Units or Systems are used by 40 railroads and are covered by more than 60 issued patents and patents pending.

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Dependable, long life, direct current power supplies for open and closed loop signal circuits . . . and for use wherever direct-current is required from an alternat-

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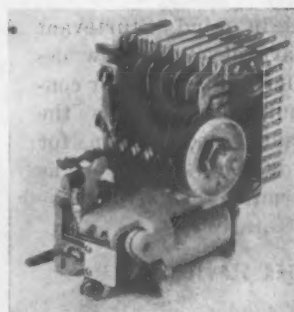
Receivers and transmitters for two-way communication, for FM operation, and for AM operation at low, medium, and high frequencies; with a range of



transmitter power outputs from 5 watts to 200,000 watts.

## FTR-800 High-Speed Automatic Selector

for local and remote circuit control or selection . . . push-button or dial . . . flexible and highly adapt-



able for signal and alarm circuit uses. 6 wiper-11 points, or 3 wiper-22 points.

# *Federal Telephone and Radio Corporation*



NEWARK 1, NEW JERSEY

**WHY DOESN'T  
IT BREAK  
HER TOES?**



You couldn't sail through the air and land on the end of your toes without injury, even wearing a padded ballet slipper. But the dancer is trained to *travel* the force of the impact through flexed ankle, knee, and hip muscles so that the shock is safely absorbed.

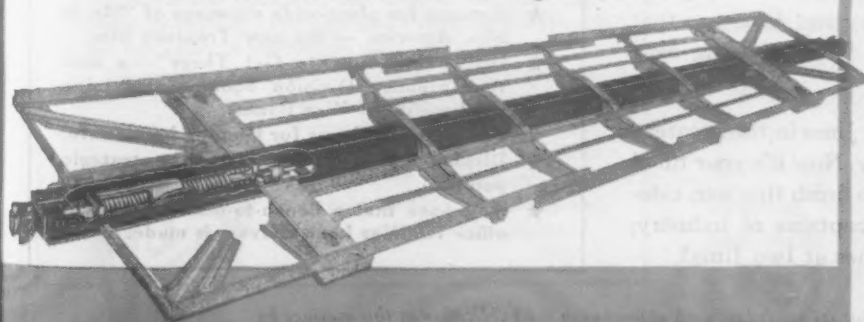
## **MOVEMENT CUSHIONS THE SHOCK!**

The same principle, in the Duryea Cushion Underframe, gives you **SHOCKPROOF SHIPPING**.

The unique Duryea floating center sill *travels* the force of each impact the entire length of the car, absorbing it as it goes in big cushion springs . . . car and lading ride *over* the blow.

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## **DURYEA *Cushion* UNDERFRAME** **FOR FREIGHT CARS**

**The Modern Safeguard For Shockproof Shipping**

### **How the Duryea Cushion Underframe Contributes to Victory**

**PROTECTS** car and lading, prolongs car life, cuts damage claims.

**PERMITS** higher handling speeds.

**ELIMINATES** gear replacements maintaining efficiency for life of car.

**SAVES TIME** loading and unloading. Needs less packing and bracing.

**SAVES MONEY** usually spent for maintenance on every part of car.

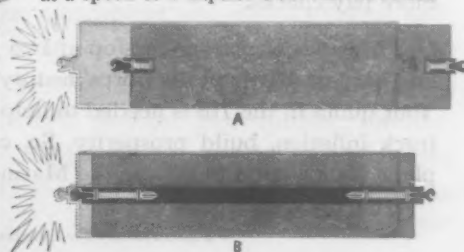
**COMPLEMENTS** air brake; Duryea cars withstand abrupt stops.

**CUTS SLACK** to pre-determined ideal.

**COSTS NO MORE** than conventional type, for average Duryea gear.

### **Here's what actually happens**

. . . when two stationary freight cars receive the same impact, equivalent to a 50-ton car, loaded to capacity, coupling at a speed of 4 m.p.h.: **CONVENTIONAL**



**CAR (A):** Draft gear "goes solid," car receives almost entire impact.

**DURYEA CAR (B):** Shock absorbed by cushion gears, car and lading are comparatively undisturbed.





**CAPTAINS OF  
INDUSTRY  
Plant your flag  
on top, too!**

***This year we've  
got to make 2=3!***

much as we lent last year in 3. Which means that, in the approaching 7th War Loan, each of us is expected to buy a **BIGGER** share of extra bonds.

The 27 million smart Americans on the Payroll Savings Plan are getting a headstart! Starting right now they are boosting their allotments for April, May and June—so that they can buy *more* bonds, and spread their buying over *more* pay checks.

Our Marines went over-the-top at Iwo Jima in the greatest, and hardest, battle in the Corps' history. Now it's *your* turn! Your quota in the 7th is needed to help finish this war, side-track inflation, build prosperity. So, captains of industry, plant your flag on top—like the Marines at Iwo Jima!

This year we've got to make 2=3! We've got to lend Uncle Sam in 2 chunks almost as

★  
**CAPTAINS of INDUSTRY—here's your  
Check List**  
for a successful plant drive:

- ★ Get your copy of the "7th War Loan Company Quotas" from your local War Finance Chairman. Study it!
  - ★ Determine your quota in E Bonds—the backbone of every War Loan.
  - ★ Arrange for plant-wide showings of "Mr. & Mrs. America"—the new Treasury film.
  - ★ Distribute "How to Get There"—a new War Finance Division booklet explaining the benefits of War Bonds.
  - ★ Circulate envelopes for keeping bonds safe.
  - ★ Display 7th War Loan posters at strategic points.
  - ★ And—see that a bench-to-bench, office-to-office 7th War Loan canvass is made.
- ★

*The Treasury Department acknowledges with appreciation the publication of this message by*

**RAILWAY AGE**

★ *This is an official U. S. Treasury advertisement prepared under the auspices of Treasury Department and War Advertising Council* ★

**PAST...Proved!**

**FUTURE...Assured!**

# *Electrified Operation*



## **Pennsylvania Railroad's Electrified Lines Prove Value of High-Speed Mass Transportation**

Electrification is no postwar dream . . . it's a practical reality. Proved through years of dependable performance, electrification delivers volume traffic, on fast schedules, at low operating and maintenance costs. Postwar, electrification will have its biggest job . . .

The Pennsylvania Railroad has done an outstanding job of wartime transportation. Over its electrified lines alone, in 1943, the Pennsylvania moved 15,947,250,000 net ton miles; 6,455,090,000 passenger miles.

Westinghouse has been privileged to supply to the Pennsylvania the equipment for a large number of locomotives and cars for multiple-unit service, as well as a large portion of the transformer, circuit breaker switching and other substation equipment.



**Westinghouse RAILROAD ELECTRICAL EQUIPMENT**  
PLANTS IN 25 CITIES... OFFICES EVERYWHERE

helping railroads meet the competition of the future.

The Pennsylvania Railroad was one of the pioneer users of electrified rail operation . . . and its electrification is an acknowledged success. Serving America's densest traffic, electrification gives the Pennsylvania high-speed transportation of passengers and freight . . . on schedules unsurpassed by any other type of motive power. Westinghouse is proud to have had an important part in every phase of the Pennsylvania's complete electrification program since its beginning.

Westinghouse engineering and manufacturing skill, plus its years of specialized experience with railway electrification problems, are available to executives planning electrified service. For further information, write Westinghouse Electric & Manufacturing Company, P. O. Box 868, Pittsburgh 30, Pennsylvania.

J-95096

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High purity oxygen has an important bearing upon speed, economy and efficiency in the use of every oxyacetylene flame process; particularly in cutting or related applications. A seemingly small difference of but  $\frac{1}{2}$  of 1% in purity can make as much as 10% differ-

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Behind the guarantee of high-purity oxygen, the Airco trade mark also represents reliable deliveries to industrial areas—a responsible supply source for equipment and helpful engineering assistance on all applications of the oxyacetylene flame.

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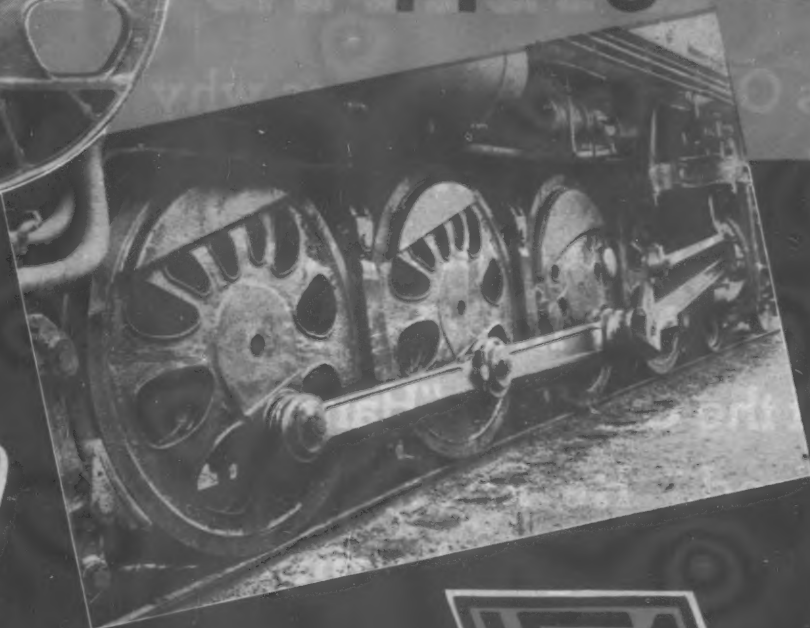
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GUARANTEED **99.5%** PURE  
IN THE CYLINDER





*Make the Most*  
of  
**"Shopping-Time"**



*Improve with*



## **DRIVING WHEEL CENTERS**

Application of these scientifically designed Driving Wheel Centers will improve the riding and the operation of the locomotive and will lessen the load imposed on the track.

The LFM design, based on careful studies of wheel stresses, eliminates many faults which are inherent in conventional spoke-type wheels, such as "dishing," transverse bending, and flattening. The LFM Company can serve you by modernizing your Driving Wheel conditions.

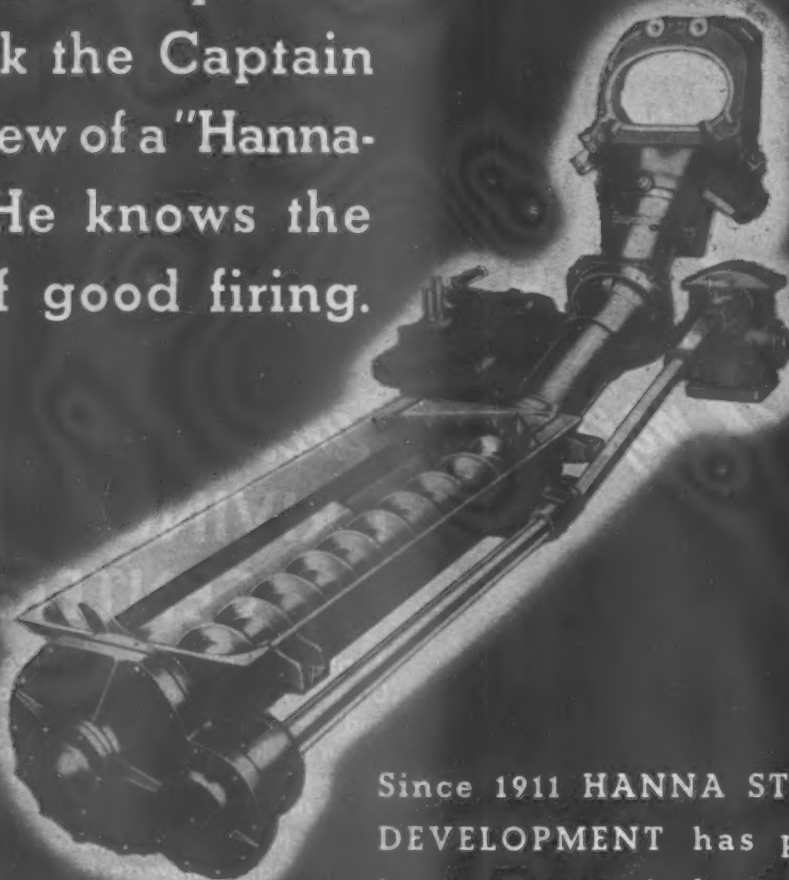
LFM alloy steel pistons are 50 per cent lighter than the conventional type. Used with LFM Universal sectional bull and packing rings, they assure big savings in locomotive operation.



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is ONE of the reasons why The HANNA System of Firing gets more tractive effort from every ton of coal. Ask the Captain of the Crew of a "Hanna-Fired." He knows the value of good firing.



Since 1911 HANNA STOKER DEVELOPMENT has paced improvements in locomotive power, efficiency and economy.

**THE HANNA STOKER COMPANY**  
Cincinnati 27, Ohio



## SUPERIOR 3-WAY FLUE ROLLER

This little tool does a complete job, a quick job, a thorough job. It is called the 3-Way Flue Roller because it Expands, Prossers and Flares, in one operation.

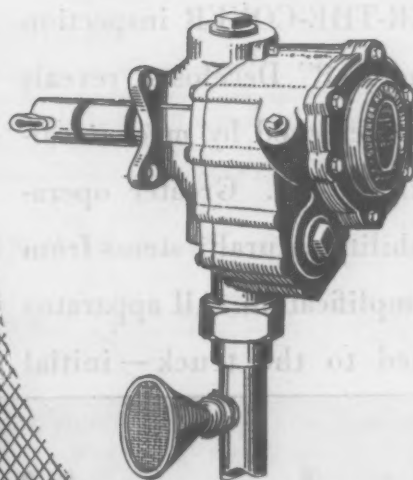
Saves fully 80% in time and labor and affords a high degree of safety. These are not just hopeful claims, they are proven facts easily verified and they mean important economy at this time.

Write for more information

**SUPERIOR RAILWAY PRODUCTS CORP.**  
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Many case histories are available to show the practicability of the Superior Automatic Flue Blower and its efficiency in stepping up and maintaining motive power. Its use assures longer hauls and heavier loads, less fuel consumption, and reduces "down-time" to routine inspections.

Full information upon request



**SUPERIOR**  
*Automatic*  
**FLUE BLOWER**



*Undercover*

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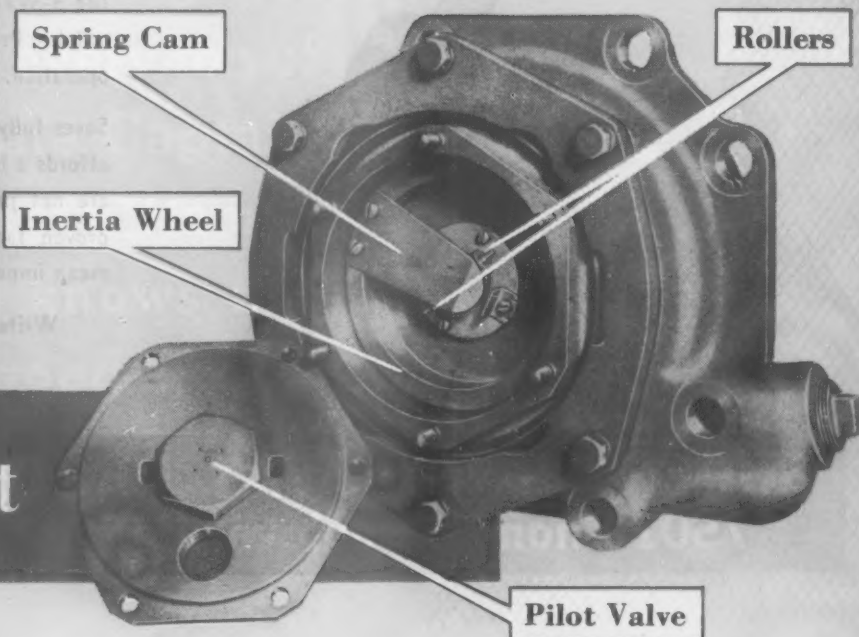
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*"AP"*

*Decelostat*



SOFTENS THE BRAKE  
WHEN WHEEL SLIP IMPENDS



**U**NDER-THE-COVER inspection of the "AP" Decelostat reveals simplicity achieved by mechanical-pneumatic design. Greater operating reliability naturally stems from design simplification. All apparatus is confined to the truck — initial

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Wilmerding, Pa.

# Railway Age

With which are incorporated the Railway Review, the Railroad Gazette, and the Railway Age-Gazette. Name registered in U. S. Patent Office.

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# The Week at a Glance

## FREEDOM HAS FEW FRIENDS:

Both the Republicans and the New Dealers do a great deal of talking about freedom—of enterprise and otherwise—while both groups assiduously pursue policies which seek to curtail economic freedom, a necessary condition to maximum production and opportunity for employment. An editorial herein points out that the Republicans still cling to their mercantilist policy of high tariffs, calculated to minimize our trade with the rest of the world, and to force this country into producing things for which we are poorly adapted. The New Dealers, on the other hand, deprecate high tariffs, but are aiming at an exactly parallel objective by seeking to establish a level of domestic wages which will result in production costs so high that foreign buyers cannot purchase our wares. Leaders of both parties utter praises of world trade as a necessary factor in international peace and domestic prosperity, and both of them are doing their level best to curtail such trade to a trickle. They denounce candid political "isolationists" as scalawags, while they themselves work with the greatest zeal to accomplish exactly the same result through political interference with a free-market economy.

## COLLECTIVE BARGAINS OUT:

D. B. Robertson of the firemen's organization has frankly turned away from collective bargaining as a means of settling disputes between railroad managements and unions, and has embraced unilateral political action by the unions as a preferable alternative. His position and his defense of it are set forth in his testimony on the proposed liberalization of railroad "social security" legislation, reported in the news pages herein. For one thing, Mr. Robertson says that collective bargaining takes too long; also, he complains that railroads send "second or third string personnel" men to such conferences and the union leaders never see a railroad chief executive. He forgets, perhaps, that railroad executives have one or two other slight duties besides dealing with unions, while the union chiefs have no calls upon their time except those of conferring and politicking.

**HARRY TRUMAN:** The new President has had rather extensive practical experience on the legislative side of transportation problems, both as a leading member of the Senate Committee on Interstate Commerce and in his role as an investigator of war-time industrial performance. His acts and attitude toward the railroads are briefly reviewed in the news pages. The leading editorial draws attention to an apparently more favorable attitude by President Truman toward private economic enterprise than that manifested by his predecessor. If this impression be founded in fact, then leaders of free enterprise have now at least a fighting chance to come out of their cyclone cellars and take the measure of their opponents. Unless these leaders who have identified themselves with private enterprise intend, however, to proffer the genuine article to the public—without any strings attached in the form of federal

favors for their own businesses—then they might as well continue their residence in the canine caravansary. The "mixed economy" and spending formula proposed by Wallace, Hansen and other New Dealers isn't at bottom one bit further on the road to socialistic serfdom than the "federal aid" complex exhibited by some business leaders—especially those who speak for waterways, aviation, and highways.

## 38.5 MILLION TROOP TRIPS:

From Pearl Harbor until the end of February the railroads had carried 38.5 million troops in organized movements (omitting all individual and small-group travel, furlough travel, and the movement of the forces of Allied nations). This total is almost  $4\frac{1}{2}$  times the sum of comparable traffic in World War I.

**ACCIDENTS:** In an editorial in last week's issue it was pointed out that the long-time trend in railroad safety is undeniably and even astonishingly favorable. Such a trend is seldom if ever an even progression, and the casualty record for the first two months of the current year, reported in our news pages, is, in some of its aspects, one of those temporary but disconcerting deviations from the inherently satisfactory tendency of the accident curve. The overall figures show fewer passengers and employees killed, but more injured, in the first two months of this year than last. Train accidents in the two months totaled 3,184, an increase of 16 per cent over last year.

**LAND-GRANT RATES:** The law says that only U. S. government naval or military property moving for naval or military use is entitled to land-grant rate reductions, but a lawyer named Arnold Levy, on the Attorney General's staff, has gone into a federal court and insisted that phosphate rock destined for use under "lend-lease" to fertilize farm crops in Great Britain must get these reduced rates, because British agriculture is "related to war." That is, Congress has said that there are two mutually-exclusive uses to which a product may be put—one military and the other civilian—but Lawyer Levy insists that there is only one use, i. e., the military. The court has decided against Mr. Levy, but the case will probably be appealed, and an editorial herein concludes that the only safe course for Congress is to have its say again (by passing the pending Boren bill repealing land-grant rates completely), in language into which lawyers and the peculiar species of courts this country has lately acquired cannot possibly read a double meaning.

**NEW DIESEL:** The Baldwin-Westinghouse Diesel-electric locomotive (two units of 2,000 hp. each) for high speed service, which for several months has been in test service on several railroads, is described in an illustrated article in this issue, with a tabulation of its principal characteristics and dimensions, and a partial list of the materials and equipment which have entered into its construction.

**CAR SHORTAGE INQUIRY:** The Senate committee on interstate commerce got a hearing going this week into the car shortage problem—especially that of grain-belt shippers, whose champion, Senator Clyde Reed, thinks that the railroads and government agencies are remiss in their concern for the interests of his constituency. Colonel Johnson of the O. D. T. is just as strong a defender of car service performance as Clyde Reed is a critic of it, and these two energetic officials, with some able assistance from the side-lines, gave a rather forthright tone to the proceedings, reported in our news pages. Quite likely the railroads could be doing some better with the grain if there weren't any export war freight to move. As Senator Wheeler observes, the shipping interests have been getting all the materials they asked for and the railroads have not, so it is scarcely to be expected that a lack of transportation wouldn't show up somewhere.

## CHAOTIC TRANSPORT POLICY:

We used to carry the freight to the ocean, now we are trying to carry the ocean to the freight. Thus Frank Wall of the New Haven epitomizes the policy toward transportation development which this country has pursued since the first world war—in a trenchant and searching analysis, presented to the New England Railroad Club and published as an article in this issue. Coordination of transportation, that hallowed objective of all transport oratory, we had already attained at the time of the first world war, Mr. Wall explains, but we abandoned it. If we wish to re-achieve it, then we must go back to the practice of putting each type of transportation on a basis of self-support from the payments of its direct beneficiaries. The genesis of current difficulties is traced back to the federal income tax amendment which gave the government a large source of revenue from which it could bestow largesse upon special-interest groups which, previously, it could not accommodate for lack of funds.

**"REAL" RR WAGES:** In spite of high income taxes and an increase in living costs of 25 per cent since 1940, the average railroad employee in 1944 had a standard of living over 10 per cent higher than that which he enjoyed in 1940. This fact is demonstrated in an editorial on page 702 herein, which recognizes the devoted service which railroad employees have given to their country and the industry in time of war—pointing out, however, that this zealous service has been well compensated.

**READING FINANCING:** Continuing the series of articles on some noteworthy current accomplishments of individual railroads in refinancing their fixed-interest obligations, the Reading's sale of an \$84,000,000 bond issue last week is made the occasion for a review herein of that system's recent acquisition of still greater financial strength. Completion of the current refinancing will bring to 36 per cent the company's total reduction since 1935 in fixed interest requirements.

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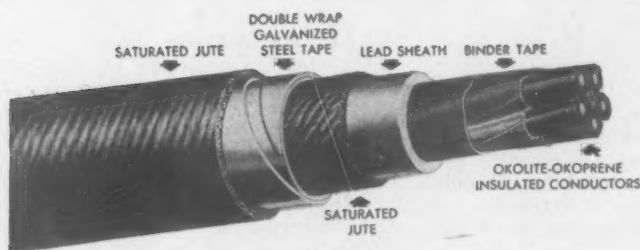
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# RAILWAY AGE

## New Opportunity for Business Leadership

The death of President Roosevelt apparently has greatly increased the opportunity and responsibility of business leadership in the United States. All the available evidence indicates that President Truman is unsympathetic with the principal post-war economic policies which the New Dealers have been promoting. As strong evidence of this as any is the well-known fact that it was to placate the conservatives in his party that President Roosevelt had Mr. Truman instead of Henry Wallace nominated for vice-president. The best-informed Washington newspaper correspondents seem to agree that President Truman is opposed to huge post-war government expenditures ostensibly to provide employment, and favors balancing the budget as soon as practicable, and reducing taxes and government controls, in order to afford private enterprise the greatest opportunity possible to provide adequate production and employment.

If President Truman supports these policies, his action will be a challenge to the nation's business leadership. The advocacy of huge government "investment", which would promote competition with numerous forms of private enterprise, and of over-all "planning" to regiment all private business, will be continued by persons and organizations whose influence could easily be underrated. But they have lost the powerful leadership upon which they relied. The defenders and advocates of private enterprise, if they have the honesty and courage to do so, can now meet the advocates of socialistic policies on better than equal terms in the forum of public discussion. Business leaders can do what will be necessary to cause in the post-war period unprecedented production and employment for civilian purposes. And apparently government post-war policies will not afford them as good an alibi for failure to do so as there has been reason to fear they would.

The challenge to business leadership is three-fold. First, will a large part of it quit promoting, in its supposed self-interest, such socialistic policies as government spending to subsidize some industries, and especially, as in the field of transportation, to subsidize competition of some industries with others? Those who profess to favor free competitive private enterprise, and at the same time support policies of subsidization, are dishonest and a menace to all private enterprise. Second, will private enterprise develop enough courage to make the fight, by its policies and through its spokesmen, which will be necessary to stop the progress of socialistic policies? Third, will private enterprise revert to the competition in making prices which will be necessary to balance the economy and thus cause development of a large enough total domestic and foreign market to absorb all the goods that our industries can produce by employing virtually all who are employable?

Some persons contend so many policies inimical to private enterprise have been adopted, and so many more of such policies have strong support, that the trend toward socialization of the economy cannot be reversed. Nobody knows whether this is true or not. We will know only after all those professing devotion to private enterprise make a real effort to save it by following in the conduct of their own affairs, and by advocating in the forum of public discussion, only business and government policies which, by helping private enterprise to function successfully, will help to nullify the arguments for socialistic policies.





## Economy—What Is It?

Economy in the use of materials, in the employment of labor, in the construction and maintenance of facilities, in the salvage and reclamation of materials and in the operation of work equipment is discussed almost endlessly. Economy has been defined in many ways, but it is seldom defined precisely enough to enable one to say from these definitions what is economy and what is not.

Some have construed economy as a synonym for restriction on spending, but this meaning does not fit all cases. For instance, a new large yard was planned carefully after an exhaustive investigation of the operations to be performed. When the time for construction arrived an officer who had the authority, but who was not well informed with respect to yard operation, arbitrarily eliminated certain tracks, crossovers and connections included in the plans, and then boasted of the money he had saved. As a matter of fact, this action cost the company in less efficient operations many times the relatively insignificant sum he had "saved," and by force of necessity the facilities eliminated were eventually constructed.

Turning to maintenance, restricting expenditures for the upkeep of structures may be, and usually is, the reverse of economy, for if a structure fails because of inadequate maintenance, the cost of replacement, the loss of revenue or the disruption of service resulting from interference with essential operations may far exceed what the cost of satisfactory maintenance would have been. Many roads have learned in the school of experience that where the track has been allowed to deteriorate, the cost of rehabilitation will be far more than any "economies" that may have been realized through failure to keep it to a desirable standard currently.

Others consider low first cost a demonstration of economy, and this is often so. However, if quality is sacrificed in the interest of low initial cost, there may be no trace of economy in the transaction. A purchasing agent on a road that has always used high-grade tools in its maintenance operations was persuaded to buy another brand at a much lower price than he had been paying. An investigation made to determine why so many tools were being drawn disclosed that because of their poor quality the men were turning them in or surreptitiously throwing them out in the weeds and asking for new tools. A further investigation of the matter also disclosed that the poor quality tools were actually costing more than those of better quality.

Similar examples illustrating the wasteful use of labor might be given, but they all lead to the same conclusion, namely, that the value received from an expenditure throughout the existence of the product or service acquired—compared to the values sacrificed by not using the funds in some other way—is the real measure of the economy, or lack of economy, that is obtained from the expenditure. This economy may be expressed in terms of the utility of the physical property acquired; or as reduced over-all cost; as an increase in the output of work; as the prevention of loss; or as revenue. Measured by these standards, an identical expenditure may be highly economical under one set of conditions and the reverse under other conditions.

At the moment, ideas with respect to economy may need revision temporarily, although the basic requirement of measuring the value received has not changed. Too often railway men have come to look upon low first cost as the primary basis for economy. While this may often be so, it is not necessarily true, for not infrequently high first cost or large expenditures may result in a greater degree of economy than restricted spending. During the war, when essential materials cannot be obtained, there will be cases where almost any expenditure within reason will be justified to keep an existing facility in service, whether a locomotive, a car or a power machine.

## Economic Isolationism versus Political Internationalism

The economic policies of both New Dealers and Republicans contain inconsistencies which would prevent the total policies of either from promoting the expansion of both our domestic and foreign markets enough to cause maximum practicable post-war production and distribution of goods and, consequently, maximum practicable employment. These inconsistencies are illustrated by the controversy about tariffs started by a recent message of the late President Roosevelt to Congress.

Mr. Roosevelt asked for legislation to continue the policy of reducing tariffs by reciprocal trade agreements with other nations which was promoted by former Secretary Hull. Prominent Republicans expressed opposition on the ground that reduction of our tariffs would allow an increase of imports which would undermine production and employment in this country. Our railroads are concerned, first, because, while tariffs afford them no protection, the higher tariffs become the higher they tend to make the wages and prices that railroads must pay, and, second, because tariffs affect the volume of railway traffic by affecting the nation's volume of production and commerce.

The Republican party caused adoption of our high tariff policy and still favors it. Protectionism probably had less effect on our domestic economy and foreign trade before World War I than many believe. Throughout most of the country's history its resources and industry had been developed largely by the investment of foreign capital; and we had the "favorable balance of trade" attributed to tariffs principally because we had to export more than we imported in order, with the excess exports, to pay principal and interest that we owed abroad.

When World War I ended this situation was reversed. Foreign governments and people then owed us more than we owed them; and their excess indebtedness to us was increased during the 'Twenties by large loans made by us abroad. We could not get paid the excess of what foreigners owed us over what we owed them without beginning to import more than we exported. But a Republican-controlled Congress in June, 1930, passed the Hawley-Smoot Act which, by raising our tariffs, restricted our imports, and thereby restricted the exports necessary to pay for them. Other nations retaliated by increasing their tariffs. Thus

American tariff policy helped to curtail world trade, to deepen and prolong the world-wide depression which had begun in 1929, to promote "autarky" and "nationalism" and to create conditions tending to cause war.

The Republican party professes to favor the system of free competitive enterprise. A high tariff policy is, however, one form, and one of the worst forms, of the government interference with business which prevents the establishment and maintenance of the free market essential to the successful functioning of free competitive private enterprise.

The case of the New Dealers is equally bad. They favor a policy of shortening working hours and fixing wages which will enable American labor to get in the post-war period as much "take home" pay as it is getting during the war for working more hours. The resulting increase in hourly pay would largely increase the costs of producing, transporting and distributing goods in the United States. It would have to be offset by increases in prices of commodities and rates for transportation or the profits of business would be so reduced that private enterprise would be unable to make the expenditures for rehabilitation and expansion essential to providing adequate employment. But, obviously, increases of costs and prices in this country, unaccompanied by corresponding increases of them in other countries, would curtail our exports by impairing our ability to meet competition in foreign markets. A simultaneous reduction of our tariffs would abnormally increase imports by helping foreign producers to undersell us in our domestic markets. The curtailment of exports accompanied by the abnormal increase of imports would soon be destructive of production and employment in the United States.

Great emphasis is placed upon the necessity of restoring and expanding world trade as a means of restoring world prosperity and maintaining peace. The extent to which any nation participates in world trade is measured by the volumes of both its exports and its imports. No nation can afford to export largely unless it imports largely, because in order to be paid for its exports it must accept pay for them preponderantly or wholly in imports. Foreigners largely paid us for our exports in the 'Twenties with money that we loaned

them and these loans proved to be largely gifts because we would not accept sufficient payment for our exports in imports. Before the great increase of foreign trade needed to restore world prosperity can be accomplished the barriers to it raised by many nations must be greatly reduced. Our Republicans, by advocating a high tariff policy, are opposing reduction of these barriers. Our New Dealers, by advocating large increases of American labor costs of production, transportation and distribution, are advocating what would make necessary the maintenance of tariffs they propose to reduce, if foreigners were to be prevented from underselling us in our own domestic market as well as in foreign markets.

The New Dealers and Republicans have one objective in common—viz., the maintenance of much higher wages and costs of production in the United States than abroad. But if it is to be our national policy, whichever party is in power, to maintain in this country much higher costs of production and transportation, and consequently much higher prices of goods, than those prevailing in the rest of the world, we had just as well quit talking about helping to restore and expand world trade. Both the Republican policy of high tariffs, which would restrict imports, and the New Deal policy of high

### "The Road to Serfdom"





costs of production which would restrict exports, are policies of economic isolationism. We hear leaders of both parties denouncing *political* isolationism and urging participation by our government in international organizations to maintain peace. But political internationalism, to be successful in maintaining peace, must be implemented by economic internationalism—i. e., by more freedom of world trade than prevailed before World War I, and much more of such freedom than prevailed between World Wars I and II. The practice of economic isolationism by all or any of the great nations, especially the United States, would soon break down any international political organization for peace.

## "Land-Grant" Rates

Late in March the federal district court for the eastern district of Virginia handed down a decision in a case wherein the receivers of the Seaboard Air Line sought to collect \$638 from the United States government, which the government had deducted from a freight bill paid to the railway, contending that, by previously having paid commercial rates on two shipments of phosphate rock destined to the British Committee of War Transport under the "lend-lease" program, the government had overpaid the railroad. The government, that is, contended that all "lend-lease" shipments are entitled to "land-grant" rates and the railroad took the contrary view.

To be entitled to a "land-grant deduction" under the provision of the Transportation Act of 1940, Section 321 (a), the shipment must be "military or naval property of the United States moving for military or naval and not for civil use," and this phosphate rock being "lend-leased" to Britain was destined for use there as agricultural fertilizer. Arnold Levy, special assistant to the Attorney General, who tried this case for the government, insisted in his brief that "in an integrated war economy, the supply of raw materials, the exploitation of the industrial plant, and the utilization of the land for food production are directly related to war," and, for this reason, that agricultural property became "military property moving for military and not for civil use."

The court observed that "this line of reasoning, if followed to its logical conclusion, would obliterate any distinction between the civilian and military in time of war," whereas the language of the Transportation Act proclaims the existence of a distinction between military and civilian uses of government property. The court noted further that the War Department itself in its tabulations of "lend-lease" goods distinguishes between military and non-military goods, and it concluded that Congress intended in its wording of the "land-grant" clause of the Transportation Act to give effect to this distinction. The court's decision, consequently, favored the plaintiff railway.

The case will doubtless, however, be appealed, and, with the federal courts constituted as they now are, any litigation in them is pretty much of a gamble. At hearings in March, 1944, on the Boren bill to repeal the "land-grant" rates entirely, Judge R. V. Fletcher, speaking for the Association of American Railroads,

testified that, at that time, some \$200,000,000 of railroad revenue was in dispute with the government, involving the difference between freight charges collected by the railroads from the government, based on the railroads interpretation of the traffic entitled to "land-grant" deductions, and lower charges the government was seeking to establish by applying "land-grant" deductions to a much wider range of shipments than those of obviously military character. By this time, undoubtedly, the total sum in dispute is much larger—enough so indeed to subject the railroads to a ruinous levy on their cash resources if the higher courts should take a different view of this question from that of the district court in eastern Virginia.

The railroads have in reduced rates paid back the full value of the land grants several times over and there is no longer any excuse in economics, ethics or public policy for retaining this favored treatment of government traffic—and every reason why the lack of more precise language in the law should be corrected to remove the financial health of the railroads from its present exposure to possible whimsical treatment by the higher federal courts, which as presently constituted have shown a fondness for basing their decisions on individual predilections rather than on precedent and logic.

The Boren bill, H.R. 694, for "land-grant" rate repeal is again before Congress, having been approved by the House at the past session but not having come to a vote in the Senate. Its enactment is one of the "musts" for the removal of private enterprise in transportation from its present jeopardy.

Not only the railroads are interested, but rival agencies of transportation as well, since they have to reduce their rates to the "land-grant" level in order to participate in the traffic. Private shippers are, of course, injured by the continuance of these preferential rates which, in effect, force private enterprise to subsidize government traffic by paying more than a pro rata share of the revenues required to support railroad service. There is little opposition to repeal of these rates except from some bureaucrats who are more anxious to injure the railroads than, by treating the railroads justly, to promote the national welfare.

## Economic Position of Railway Employees

Even with the higher cost of living and greatly increased income taxes, larger hourly wage rates and opportunities for additional work have combined to give the average railway employee a considerably higher standard of living today than he enjoyed before the war. The figures are given in an accompanying table—those in columns (a), (d) and (e), showing average annual wages in 1944 and 1940 and the increase from 1940 to 1944 being taken from the current "Monthly Comment on Transportation Statistics," issued by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission.

These figures indicate that average annual earnings of all railway employees increased 46 per cent from



## Increases in Annual Earnings of Railway Employees (Based on Mid-Month Count of Employees)

	Annual Earnings 1944 (a)	Estimated Federal Income Tax* (b)	1944 Earnings Less Federal Income-Tax (c)	Annual Earnings 1940# (d)	Per Cent Increase '44 over '40 (Income Tax Not Deducted) (e)	Per Cent Increase '44 over '40 (Income Tax Deducted) (f)	Net Increase in "Real" Wages† (g)
Clerical and general.....	\$2,399	\$79	\$2,320	\$1,788	34.2	29.7	3.6
Maint. of way & structures.....	2,021	39	1,982	1,234	63.8	60.6	28.3
Maint. of equipment & stores.....	2,661	136	2,525	1,711	55.5	47.6	17.9
Transportation							
Other than train & engine.....	2,375	79	2,296	1,713	38.6	34.0	7.0
Switch tenders and hostlers.....	3,161	242	2,919	2,153	46.8	35.6	8.3
Train and engine.....	3,580	325	3,255	2,576	39.0	26.4	1.0
Total.....	2,664	136	2,528	1,825	46.0	38.5	10.6

\* Calculated on a basis of a man and wife and two dependent children.

# It is assumed that, in 1940, a family of four would have paid no federal income tax on such earnings as these.

† I.e., the percentage by which the ratios (plus 100) in column (f) exceed the 25.2 per cent rise in the B.L.S. cost of living index between 1940 and mid-year 1944.

1940 to 1944, with the ratio of increase varying between 34 per cent for employees in the "clerical and general" category to almost 64 per cent for maintenance of way employees. The increase in the cost of an hourly unit of labor to the railroads is reflected in a rise of 27 per cent in average hourly compensation from 1940 to 1944. The balance of employees' increased earnings has come from opportunities available in 1944 but not in 1940 for additional hours of work—at overtime rates of pay for the most part.

It has never been considered an obligation of any employer to raise pay enough to relieve employees of the burden of war income taxes, and sums deducted from wages for federal income taxes cannot be spent for articles entering into the employee's standard of living. Federal income taxes which an employee with a wife and two other dependents would pay, based on the Treasury's "short form" return, on the earnings shown in column (a), are listed in column (b), and 1944 earnings less these estimated income taxes are shown in column (c). The average earnings listed in column (d) for 1940 were not then subject to income taxes. The percentages of the increase in 1944 earnings, after income taxes, compared to 1940 untaxed earnings, are given in column (f), and show an average increase of 38.5 per cent, after deducting income taxes.

The Bureau of Labor Statistics recorded an increase of 25.2 per cent in the cost of living between 1940 and mid-year 1944, and column (g) gives effect to this, revealing that the average railroad employee enjoyed an improvement in his economic status of more than 10 per cent from 1940 to 1944, after full weight is given both to the increased cost of living and to the income taxes that had to be paid in 1944.

Actually, these figures do not fully reflect the improvement in the economic position accorded to railroad employees in time of war, because the average earnings shown are those of *occupations*, not of specific employees. Many if not most railway employees have been "upgraded" since the war began—that is, many who before were brakemen have been advanced to positions as conductors; firemen have become engineers, and so on. In such cases employees are enjoying, not only the higher earnings associated with a given occupation, but also the wage increases which come with higher-rated positions. In addition, annual vacations with pay have now become the general rule, whereas they were not accorded to most nonsalaried employees in the pre-war years.

Railroad employees have been justly praised for their

devotion to duty during the war in their important work of helping keep the armed forces adequately supplied with munitions and reinforcements. The figures indicate, however, that their services to the railroad industry and to their country have not been unrewarded, but, on the contrary, have been generously compensated. Unlike railway employees, many categories of Americans have had the incomes they could spend reduced, and even greatly reduced, by the increases in their taxes, and have had to pay the increased cost of living from these reduced incomes.

## The Case for Light Reciprocating Parts

In the conclusions of the A. A. R. report on Counterbalance Tests of Steam Locomotives for High-Speed Service, which were reviewed in the March 31 issue of *Railway Age*, the limits of reciprocating unbalance and of rotating overbalance within which satisfactory counterbalancing can be effected are set forth as follows: reciprocating unbalance on each side below a maximum of 8 lb. per ton of total locomotive weight in working order, and rotating overbalance up to 200 lb. per wheel, with little advantage in reduction of dynamic augment from overbalance of less than 100 lb. per wheel.

Two of the locomotives tested had reciprocating parts which weighed 10.7 lb. per ton of locomotive weight and one had reciprocating parts which weighed 12.8 lb. per ton of locomotive weight. Applying the limits established by the tests, it will be seen how important attention to the weight of reciprocating parts is. Deducting the maximum desirable reciprocating unbalance of 8 lb. per ton from the weight of the reciprocating parts of the locomotive on which these parts weigh 12.8 lb. per ton of locomotive weight leaves an overbalance of 218 lb. per wheel—well above the limit which the tests indicated as desirable.

A weight of reciprocating parts of 12.4 lb. per ton is as high as can be balanced within the limits established by the A. A. R. tests. There are several designs of locomotives now in operation with reciprocating parts weighing less than 8 lb. per ton of locomotive weight. In the case of at least one of these, the weight is less than 6 lb. per ton. Such locomotives should operate smoothly with no rotating overbalance whatever.

# Reading Sells \$84,000,000 Mortgage

Proceeds plus short term bank loans not exceeding \$6,000,000 and treasury cash will be used to retire securities totaling \$95,000,000 — Company's debt reduction record is noteworthy

ON April 12 the Reading sold \$84,000,000 of first and refunding mortgage bonds, series D, dated May 1, 1945, and maturing May 1, 1995, to Halsey, Stuart & Co., and associates, on a competitive bid of 100.59, for a 3½ per cent interest coupon, an average annual interest cost to the railroad of 3.10 per cent. The bonds were reoffered for sale to the public at 101.87.

Proceeds from the sale of the new bonds (\$84,495,600, exclusive of accrued interest), together with treasury funds, will be applied by the Reading to the retirement of \$84,249,700 of its outstanding obligations. The Reading's general and refunding mortgage 4½ per cent bonds, series A and B, due January 1, 1997, outstanding in hands of the public in the amount of \$74,272,700, will be redeemed on July 1, 1945, at 105 and accrued interest, and \$3,290,900 of the series A bonds held by the company will be cancelled; \$9,151,000 of Philadelphia & Reading improvement mortgage 4 per cent bonds, due April 1, 1947, will be retired and \$18,000 of this issue held by the company cancelled; and \$826,000 of Shamokin, Sunbury & Lewisburg second mortgage 5 per cent bonds, due July 1, 1945, will be retired and \$174,000 of this issue held by the company cancelled.

The company also will surrender for cancellation the entire amount of bonds of the following issues, all of which are owned by the company: \$5,526,000 of general and refunding mortgage 3½ per cent bonds, series C, due March 1, 1962; \$1,000,000 of Shamokin, Sunbury & Lewisburg first mortgage 4 per cent bonds, due July 1, 1975; and \$2,540,000 of Philadelphia & Reading Terminal prior lien 4¼ per cent bonds, which were acquired prior to their maturity on October 1, 1943, and held in the company's treasury.

The company also will call on October 1, 1945, for redemption on April 1, 1946, at 105 and accrued interest, the outstanding \$10,570,000 of its Jersey Central collateral trust 4 per cent bonds, due April 1, 1951, and cancel the remaining \$12,430,000 of this issue held by the company. Funds required for the redemption of these bonds will be obtained in part from treasury cash and in part through a revolving bank credit under which the company can borrow, on short term notes, not more than \$6,000,000 during the year beginning October 1, 1945, and \$1,000,000 less for each succeeding year, with the credit expiring on October 1, 1951.

The collateral trust bonds now are secured by a pledge of 145,000 shares of

Central of New Jersey stock, and also by a pledge of 22 per cent of Port Reading Railroad stock and of all the stock of the Perkiomen Railroad, which latter two companies are wholly owned subsidiaries. After redemption of the collateral trust bonds, the new mortgage will become a first lien upon all the stock of the Port Reading and the Perkiomen, other than directors' qualifying shares.

## Debt Reduction

In the ten-year period ended December 31, 1944, the Reading reduced its funded debt (including equipment obligations) outstanding in hands of the public by \$27,830,000, or 20.7 per cent, and interest charges from \$5,446,353 in 1935 to \$4,480,730 in 1944, or 17.7 per cent. After giving effect to the sale of the series D bonds, and application of the proceeds, the company's annual interest charges on its funded debt to be outstanding will be reduced to approximately \$3,468,500, a total reduction since 1935 of about \$1,977,800, or 36.3 per cent; and since 1935 other fixed charges will have been reduced by \$690,625, or 21.1 per cent. The company's funded debt and interest charges will be further reduced upon the redemption on April 1, 1946, of the Jersey Central collateral trust 4 per cent bonds.

In the same ten-year period, the Read-

ing's gross rent for leased or operated roads has decreased from \$3,259,768 in 1935, to \$2,692,623 in 1944, or 17.4 per cent. The net rent for such roads, which excludes interest and dividends received by the company on its holdings of bonds and stocks of the companies owning the roads, amounted to \$2,565,191 in 1935, as compared with \$1,932,129 in 1944, a reduction of \$633,062 or 24.7 per cent.

Table I herein shows the capitalization of the company to be outstanding as of May 1, 1945, after giving effect to the sale of the series D bonds, and the application of the proceeds therefrom. Table II presents a summary of earnings computed from the company's condensed income accounts and shows earnings and dividend appropriations since 1896.

## Control Is with B. & O.

As of March 19, 1945, the Baltimore & Ohio owned \$11,753,250 par value of the Reading's first preferred stock, \$17,280,000 par value of its second preferred stock, and \$30,040,000 par value of the common stock, an aggregate of \$59,073,250 par value of all classes, or 42.2 per cent of the outstanding stock. As of the same date, the New York Central owned \$6,840,000 par value of the first preferred stock, \$15,015,000 of the second preferred stock and \$13,145,000 of the common stock, a total of \$35,000,000 of

Table I—The Reading's Capitalization

	As of May 1, 1945, After Giving Effect to Sale of Series D Bonds
First and Refunding Mortgage 3½% Bonds, Series D, due May 1, 1995	\$84,000,000
Philadelphia & Reading Terminal First Mortgage Bonds (which will be retired by 1966 through serial maturities and a sinking fund)	6,600,000
Underlying debt (secured by mortgages on parts of the company's line and maturing on various dates to and including February 1, 1957)	3,042,000
Miscellaneous Mortgages and Ground Rents	340,364
Reading Company Jersey Central Collateral Trust 4% Bonds, due April 1, 1951. (The Company will call these bonds for redemption on April 1, 1946, funds to be provided through company cash and a revolving bank credit)	10,570,000
Reading Company Wilmington & Northern Stock Trust 4% Certificates (Callable by the Company at 105. No maturity date)	1,185,000
Conditional Sale Agreement (dated January 24, 1945, for Diesel freight locomotives, payable in sixty equal monthly installments, after payment of monthly installments on May 1, 1945)	2,383,800
<b>TOTAL FUNDED DEBT</b>	<b>\$108,121,164</b>
First Preferred Stock, 4% Non-Cumulative (par value \$50 per share)	\$27,991,150
Second Preferred Stock, 4% Non-Cumulative (par value \$50 per share)	\$41,970,600
Common Stock (par value \$50 per share)	69,989,100
<b>TOTAL CAPITAL STOCK</b>	<b>\$139,950,850</b>

Notes—All classes of stock have equal voting power.

The company is also liable as guarantor by endorsement for the payment of principal and interest on obligations aggregating \$3,157,500 of certain railroads operated under lease

\* The second preferred stock is convertible, at the option of the company, each share into one-half share of first preferred stock and one-half share of common stock.

**Table II—Summary of Earnings**

Year	Railway Operating Revenues	Railway Operating Expenses	Operating Ratio %	Net Railway Operating Income	Income Available for Fixed Charges	Fixed Charges	Net Income
1944	\$115,793,964	\$82,691,229	71.41	\$13,372,055	\$14,840,112	\$7,398,523	\$7,441,589
1943	113,784,670	73,679,210	64.75	17,924,982	19,369,014	7,547,703	11,821,311
1942	102,683,717	63,990,872	62.32	21,721,740	22,986,993	7,695,993	15,291,000
1941	79,566,095	52,921,507	66.51	16,152,539	17,345,464	8,015,260	9,330,204
1940	63,797,976	44,051,977	69.05	13,460,806	14,734,531	8,307,314	6,427,217
1939	56,744,549	39,612,689	69.81	11,931,004	13,062,292	8,340,641	4,721,651
1938	48,479,998	35,618,159	73.47	10,104,324	11,713,678	8,418,369	3,295,309
1937	58,754,351	41,467,934	70.58	13,856,835	15,301,516	8,462,171	6,839,345
1936	59,291,758	40,518,205	68.34	13,944,785	15,206,186	8,691,115	6,515,071
1935	51,373,733	35,752,145	69.59	12,562,360	14,428,107	8,713,934	5,714,173

Note.—Included in fixed charges are certain gross payments made as rental under leases and operating agreements, portions of which have been paid back to the company as interest and dividends on securities owned by it. For the year 1944, such rental payments amounted to \$2,692,623, of which \$760,494 was paid back, resulting in a net rental payment of \$1,932,129.

**Earnings and Dividend Appropriations Since 1896**

	Total Net Earnings	Dividend Appropriations		Balance of Net Earnings Transferred to Surplus
		Amount	Per Cent of Net Earnings	
1896-1923 (during which the company was a proprietary company)	\$192,616,459	\$148,309,471	77.0	\$44,306,988
1924-1944 (during which the company has been an operating company)	200,708,938	129,150,000	64.3	71,558,938
<b>Total</b>	<b>\$393,325,397</b>	<b>\$277,459,471</b>	<b>70.5</b>	<b>\$115,865,926</b>

all classes or 25 per cent of the outstanding stock.

The Reading initiated cash dividends on its first preferred stock in 1900 and on its second preferred stock in 1903 and dividends at the stated annual rate of 4 per cent have been paid on both classes from 1904 to 1944, inclusive. Cash dividends also have been paid on the common stock in each year since 1905. Common dividends paid since 1930 have been as follows: 1930 and 1931—8 per cent; 1932—2½ per cent; 1933—2 per cent; 1934—3 per cent; 1935 to 1937—4 per cent; 1938—3 per cent; and 1939 to 1944—2 per cent.

**Taxes**

The Reading's tax burden has increased materially in the past four years. Total taxes in 1939 of \$4,480,363 and in 1940 of \$5,540,321 have increased each year to a peak of \$20,622,308 in 1943

and to \$18,629,413 in 1944. The tax bill in 1944 was divided: \$4,011,335 federal income taxes; \$8,454,674 federal excess profits tax; \$3,049,600 unemployment and railroad retirement taxes; 274,311 capital stock and miscellaneous federal taxes; and \$2,839,493 state and local taxes. The company uses the invested capital method in computing its liability for federal excess profits taxes.

In connection with the litigation over taxes assessed by the State of New Jersey against the railroads for the years 1931 to 1941, the company withheld portions of taxes assessed against it and its New Jersey lessor companies for the years 1933, 1934 and 1939, and subsequently tendered all payments required in respect of such withheld taxes by the New Jersey Railroad Tax Settlement Act. Following a decision last June by the New Jersey Court of Errors and Appeals holding the tax settlement act unconstitutional, the company paid the

balance of principal and interest on the taxes which it admitted owing. There now is pending in the New Jersey Supreme Court of Mercer County a proceeding instituted by the state against certain railroads, including the Reading, in which it is alleged that the Reading and its New Jersey lessor companies owe the state an additional \$150,000 plus interest from September 1, 1944. Argument in this case is scheduled for April 27, 1945.

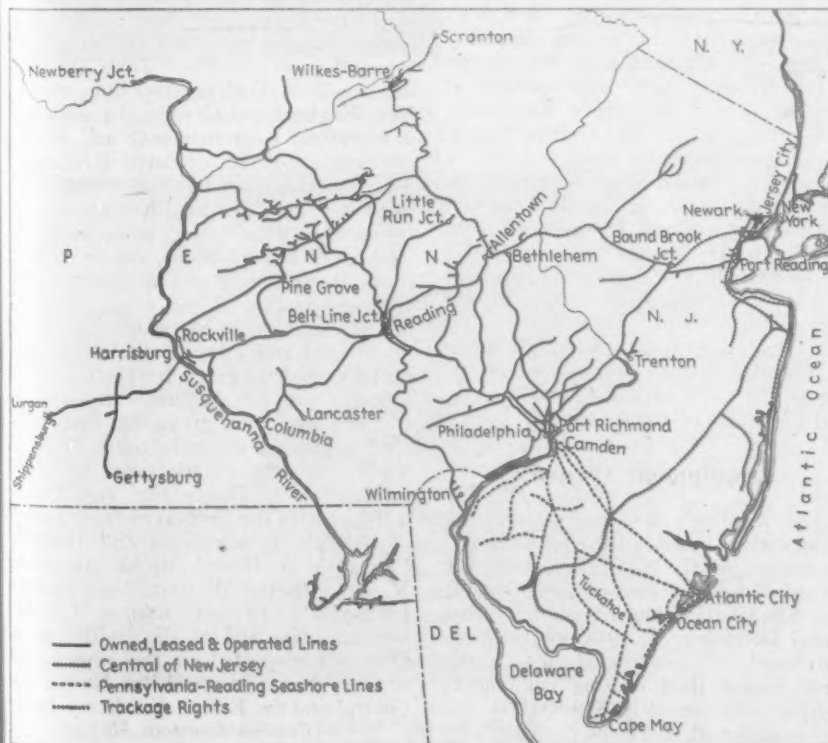
**Central of New Jersey**

The Reading owns \$15,494,000 par value of the capital stock of the Central of New Jersey, which represents 56.5 per cent of the total of such stock. It also owns \$158,000 principal amount of the Jersey Central's general mortgage 5 per cent bonds due 1987. These investments are carried on the books at cost, or \$24,275,043. Present market value of the stock amounts to about \$1,760,000. The company has received no dividends from its investments in this stock since 1931.

On October 30, 1939, the Jersey Central filed a petition for reorganization under Section 77 of the Federal Bankruptcy Act, and trustees were appointed on November 28, 1939. No plan of reorganization has as yet been filed.

**Penn.-Reading Seashore Lines**

The Reading formerly owned 99.9 per cent of the capital stock of the Atlantic City Railroad Company, (now a part of the Pennsylvania-Reading Seashore Lines), which operated lines from Camden, N. J., to Atlantic City, Ocean City, Wildwood, Cape May and other points in southern New Jersey. Under an agreement between the Pennsylvania Railroad, the West Jersey & Seashore Railroad, the Reading Company and the Atlantic City Railroad, dated November 23, 1932, the Pennsylvania acquired from the Reading two-thirds of the latter's stock interest in the Atlantic City and assigned to the Atlantic City its lease of the West Jersey & Seashore. In this agreement, the Pennsylvania and the Reading jointly guarantee the pay-





ment by the Pennsylvania-Reading Seashore Lines of the rental and all other amounts due under the lease, and agree to provide from time to time such amounts as may be required by the Pennsylvania-Reading Seashore Lines for operating expenses, taxes, fixed or other charges. As between themselves, these obligations are divided between the Pennsylvania and the Reading in proportion to their stock ownership.

The Pennsylvania-Reading Seashore Lines had outstanding, as of December 31, 1944, \$4,498,800 of funded debt, \$26,342,295 of non-negotiable debt, \$1,000,000 par value of 6 per cent non-cumulative preferred stock, and \$2,625,000 par value of common stock. The Reading holds approximately one-third of the funded debt, of the non-negotiable debt, and of each class of stock and the Pennsylvania approximately two-thirds of each class of stock.

### The Company

As of December 31, 1944, the Pennsylvania-Reading Seashore Lines showed a deficit of \$25,017,078 in corporate surplus account. From January 1, 1934, (the first full calendar year of unified operation under the agreement of November 23, 1932), to December 31, 1944, the aggregate net loss of the railroad was \$22,701,307. During this period, interest has been paid by the Seashore Lines upon its funded debt, but no interest has been paid on its non-negotiable debt since 1934 and no dividends have been paid on its stock. The aggregate of advances made by the Reading to the Seashore Lines during the years 1934-1944 was \$7,766,238, which is carried on the books at \$1. These losses do not take into account benefits derived by the Reading, such as the revenue on through business handled over the Reading's lines and moving to or from points on Seashore Lines, and the rental of surplus equipment to the Seashore Lines.

The Reading was incorporated in Pennsylvania as the Excelsior Enterprise Company on May 24, 1871. The name was changed in 1873 to the National Company and in 1896 to the Reading Company. On December 31, 1923, the Philadelphia & Reading and twelve other subsidiary railroads were merged with the Reading and on August 10, 1944, the Philadelphia & Reading Terminal and the Catasauqua & Fogelsville were merged into the company.

The company operates 1,367 miles of main line and branches in Pennsylvania, New Jersey and Delaware (not including the Ironton, which is 12 miles in length and is operated by the Reading and the Lehigh Valley as joint lessees). This mileage is divided as follows: 547 miles of road owned; 533 miles leased; 250 miles operated under operating agreements; and 37 miles operated under trackage right (including the Allentown Terminal). Of the mileage operated by the company, 564 miles of line are double-tracked. In addition, there are 166 miles of third and fourth track in service. In and near

Philadelphia, 198 miles of track, located on 84 miles of lines, are electrified.

The company also operates 1,395 miles of industrial tracks, yard tracks, passing tracks, sidings, etc., of which 730 miles are owned, 516 miles leased, and 149 miles operated under operating agreements or by virtue of trackage rights. The principal lines run from Philadelphia to Reading, Pottsville, Tamaqua, Williamsport and Newberry Junction, Pa., from Lurgan-Shippensburg to Harrisburg, Reading and Allentown, Pa.; from Philadelphia to Bound Brook Junction, N. J., where a connection is made with the Central of New Jersey thereby providing a through route to Jersey City N. J. and New York harbor; from Weston-Manville, N. J., to tidewater at Port Reading, N. J., in the New York harbor area; from Perkiomen Junction to Allentown, Pa.; from Jenkintown to Bethlehem, Pa.; from Philadelphia to Chester and Marcus Hook, Pa.; and from Reading to Wilmington, Del.

The company owns and operates various terminals used for the collection, delivery and transfer of freight, including the terminal at Port Richmond, Philadelphia, which is one of the most extensive tidewater terminals in the United States, having a storage capacity of approximately 5,800 cars and a modern grain elevator with a storage capacity of 2,500,000 bushels; and operates the terminal (partly owned and partly leased) at Willow and Noble streets, Philadelphia, which handles, in addition to water-borne freight, a large volume of all-rail freight originating in or destined to one of the most important business districts in the city. The Port Reading Railroad, a wholly owned subsidiary, owns a freight terminal on New York tidewater at Port Reading, N. J., with modern facilities for unloading anthracite and bituminous coal from railroad cars into barges and vessels, and with supporting yard tracks having a capacity of approximately 3,000 cars.

The company owns and operates at Reading one of the largest locomotive and car shops in the United States. These shops cover 86 acres, and have a capacity for making heavy repairs to approximately 60 modern locomotives, 600 freight cars, and 15 passenger cars per month. During the five years ended December 31, 1944, the company constructed approximately 5,500 freight cars in these shops. The company also owns the entire capital stock of the Reading Transportation Company, which operates 534 miles of motor coach routes and 831 miles of truck routes.

### Equipment Owned

The Reading's investment in equipment (other than floating equipment) as of December 31, 1944, after deducting recorded depreciation and amortization, was \$38,356,033. During the five years ended December 31, 1944, the company purchased or constructed new equipment (other than floating equipment) costing approximately \$18,500,000. As of December 31, 1944, the company's lo-

comotive, car and service equipment (exclusive of floating equipment) consisted of 694 locomotives, including 63 Diesel-electric units, 34,549 freight cars, 787 passenger cars and 390 work cars. The new mortgage constitutes a first lien on this equipment, subject only to a final payment of \$236,000 due May 1, 1945, under an equipment trust.

On or about April 20, 1945, the company will have completed the construction during 1945 in its Reading shops of 774 additional steel freight cars, at a cost of \$2,647,924, on which the mortgage will be a first lien. It also has acquired this year five 5,400-hp. Diesel freight locomotives. The mortgage is a lien on the company's interest in these locomotives, subject only to the conditional sale agreement covering their purchase, under which the company is required to pay the total purchase price of \$2,466,000 in sixty equal monthly installments beginning April 1, 1945. Construction will begin at Reading in July on twenty 4-8-4 type steam locomotives, for high-speed freight service, and the mortgage will be a first lien on these locomotives also.

### Maintenance

The company's properties, both road and equipment, are reported to have been properly maintained. During the 10 years ended December 31, 1944, expenditures for maintenance of fixed property and equipment, exclusive of depreciation, retirement and amortization charges, have totaled approximately \$169,000,000.

The Reading serves a thickly populated industrial, mining and agricultural territory. It is a terminal road for eastern Pennsylvania, including the Philadelphia metropolitan area, and a bridge route for traffic moving across the states of Pennsylvania and New Jersey between points in the south and west, and between points in New York (including the New York metropolitan area), New England and Canada. In addition, it serves the western middle and southern anthracite fields (Schuylkill region). The company also handles through its tidewater facilities at Philadelphia, in connection with water lines, a large tonnage of foreign traffic, and in normal times, large tonnages of intercoastal and coastwise traffic.

The company, in its capacity as a terminal road and a bridge route, has important interchange of freight traffic as follows: with the Baltimore & Ohio at Philadelphia, thus providing that railroad a part of its main route to New York; with the Pennsylvania at Shippensburg, Pa., Harrisburg and Philadelphia; with the Central of New Jersey at Bethlehem, Allentown and Haucks, Pa., and at Bound Brook Junction, N. J.; with the Western Maryland at Lurgan, Pa., (a large volume of traffic moving from and to the Baltimore & Ohio is transported via this route) and at Gettysburg, Pa.; with the New York Central and the Erie at Newberry Junction.

(Continued on page 710)

# New Haven Tests Radio Train Communications

**Demonstration indicates satisfactory end-to-end contact on 100-car train in rugged terrain**

**A** DEMONSTRATION of space radio train communication was made on the New York, New Haven & Hartford on April 17 with equipment manufactured by the Westinghouse Electric & Manufacturing Co. One set of equipment was installed as a fixed unit in the railroad station at New Haven, Conn., and two units respectively on locomotive No. 3205 and caboose No. C-580. For the demonstration the mobile units were attached to opposite ends of a hundred-car freight train and run from New Haven to Danbury, Conn., over a rugged terrain including many curves. Good loudspeaker reception was maintained at all times between the locomotive

and the caboose, and for a distance of about 10 miles between the fixed station and the train.

To indicate the usefulness of the radio, it was employed for announcing readiness of departure from either end of the train, for notifying the engineman when the train line pressure was up in the caboose, for indicating where the train was to be cut in switching operations, for advising the position of the ends of the train when it was placed on a siding, etc. No emergencies such as hot boxes developed during the run. One item of interest: At starting, the engineman notified the conductor the moment the locomotive started, and a watch in the caboose showed that the time to take slack and start the caboose was 48 seconds.

The radio sets used at the three locations are essentially similar except that the antenna output of the mobile sets is 30 watts while that of the fixed station is 60 watts. The experimental frequency employed is 30.66 megacycles. Each set is shock-mounted in a dust-tight box and consists of a transmitter, a power unit and a receiver. The transmitters employ a crystal frequency of 958.125 kilocycles multiplied 32 times to produce the carrier frequency of 30.66 mc. The frequency deviation of the carrier is plus or minus 15 kilocycles. The receivers are triple-detection, super-heterodyne, crystal-controlled oscillators, operating at 4.315 mc.

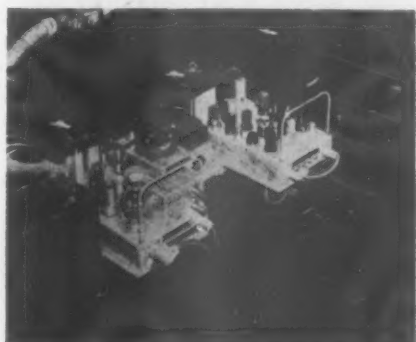
Standby power required for one of the mobile sets is 135

watts, while full operation requires 220 watts input to the set. On the locomotive the necessary power was obtained from the headlight generator and converted from 32 volts d.c. to 110 volts, 60 cycle, a.c. by a rotary converter. For the purpose of the test, a baggage car having axle generator equipment, was coupled in the train adjacent to the caboose and power was taken from the electrical system on the baggage car for the operation of the caboose equipment. Communication is maintained through push-to-talk handsets, a loudspeaker being used at each location, primarily for calling. The quality of transmission, however, is such

(Continued on page 717)



**A "Push-to-Talk" Handset Is Used at Both Mobile and Fixed Stations**



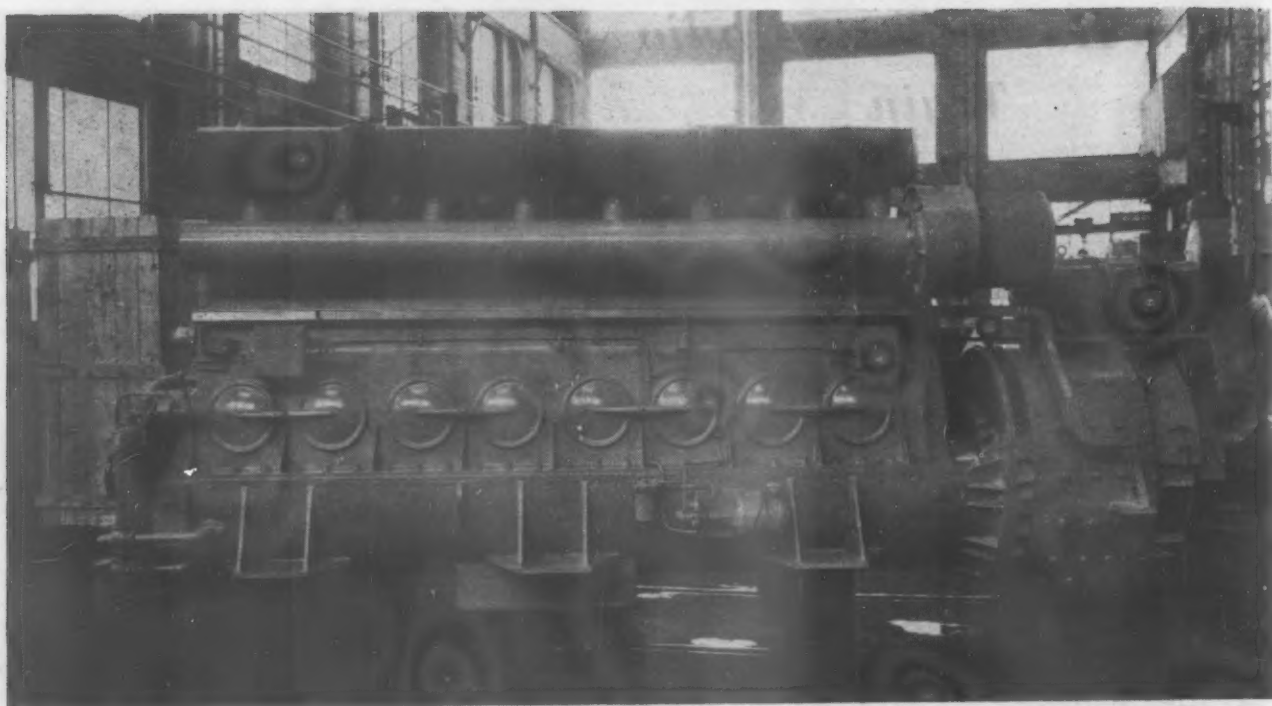
**Similar Shock-Mounted Transmitter, Power Supply and Power Units Are Used at Each Location**



**The Loudspeaker Shown in the Cupola Can Be Used for Conversation, But Is Normally Used Only for Calling**



**The Dipole Antenna Is Grounded at Nodal Points to Afford Protection from Possible Contact with Live Overhead Wires—The End Portions Are Bent Down to Make Room for Water Spout**



*Each Power Plant is a Baldwin 1,000-Hp. Diesel Engine with Westinghouse Generating Equipment*

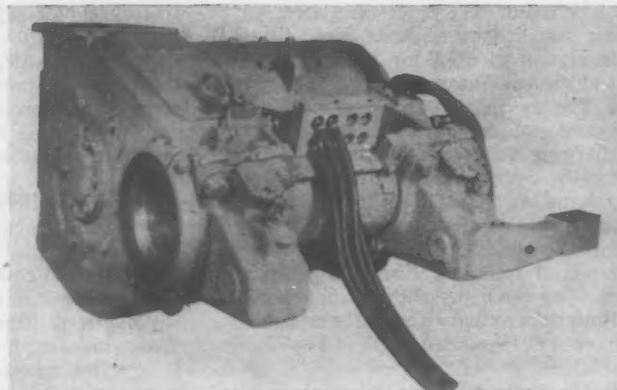
## *Baldwin-Westinghouse Road Locomotive*



*An A Unit of the Baldwin-Westinghouse Diesel-Electric Road Locomotive*



**Initial units of road locomotive built in Baldwin plant are A type, each powered with 1,000-hp. Diesel engines and Westinghouse electrical equipment — Tractive force, 76,200 lb.**



*One of the Four Traction Motors—These Are Axle Hung, Blower Ventilated Direct Current Motors*

**D**URING the past several months a number of railroads have tested in service Baldwin-Westinghouse 2,000-hp. Diesel road locomotives. Built primarily for high-speed service, the first two of these units are of the A type, each with an operating compartment at one end and equipped with a steam generator. These two units are arranged for coupling together to form a two-cab 4,000-hp. locomotive.

Each 2,000-hp. unit is mounted on two six-wheel swivel trucks with traction motors driving four of the axles. All wheels are 40 in. in diameter. Two standard Baldwin 1,000-hp. Diesel engines are installed in the engine compartment of each cab. The engines are the four-cycle type, eight cylinders in line, operating at a full-load speed of 625 r.p.m. and each driving a direct-current main generator to provide electrical power for the traction motors. The cabs have a length inside coupler knuckles of 80 ft. with a truck-center distance of 49 ft. for each. The total wheelbase of each cab is 64 ft. 4 in.

### Equipment Arrangement

The two power plants of each cab are placed on the longitudinal centerline, one being located near each truck centerpin. Each engine is directly coupled to its main generator, and also drives an air compressor and a traction-motor blower by means of Vee belts.

Cooling systems are independent for each engine and each is located in the roof of the cab just back of its engine. Motor-driven fans, receiving power from the main generators, provide the ventilation, drawing air through shutters in the sides of the cab, then through the radiators and discharging it through openings in the roof. The radiator shutters are thermostatically controlled to maintain even temperatures of the water and lubricating oil.

A train heating boiler is located between the rear engine and the rear door of each cab.

### Underframe and Cab

The underframe of the locomotive is a welded fabricated structure of steel plates and shapes. The principal longitudinal and transverse members are of I section. The superstructure framing is of the truss type and the steel cab sheets are welded to the framing.

The engine compartment is substantially braced with carlines. The roof is

steel plate with hatches for power-plant removal. Hinged covers permit piston and liner removal without taking off the main hatches. A hatch is also provided for removal of the steam generator.

Handrails are installed where necessary in the interior of the engine compartment. The exterior handrails, steps and safety appliances comply with I. C. C. regulations.

The operator's compartment has fixed front windows with combination hinged and sliding side windows, all being of shatterproof glass. Windshield wipers, defrosters and sun visors are fitted to the front windows. The compartment is double-sheathed with insulation between. The two doors leading into the engine compartment are of metal, with small shatterproof glass ports in the upper part.

The equipment consists of upholstered adjustable seats, right and left. On the right side are the engine control handles, brake equipment, air gauges, speedometer and wheel-slip indicator as well as the train signal, light, bell, horn and sander-control items, train-control signal-light box and boiler indicating lamps. On the left side of the cab are water and fuel-oil gauges.

### The Diesel Engines

The Diesel engines are the Baldwin eight-cylinder (in line) four-cycle type developing rated power at 625 r.p.m. The cylinders are 12¾-in. bore and 15½-in. stroke. Both the bed and the engine frame are welded steel structures. The frame houses the cylinder liners and is integral with the upper part of the crankcase. The liners are of the removable sleeve type made of nickel cast iron and chrome-plated on the wearing surface. The crankshaft is a solid forging, drilled for lubrication with 8¾-in. main bearing journals and 8¾-in. crank pins. Main bearings are removable through inspection openings without lifting the crank shaft.

The cylinder heads, embodying a turbulence combustion chamber, are separate castings. The pistons are made of heat-treated aluminum alloy with five compression rings and three oil-control rings.

The camshaft is chain driven from the governor end of the engine. The governor, fuel pumps, fuel nozzles and the lubricating-oil filters are on the camshaft side of the engine. The air intake header and its filter, exhaust manifold, muffler, fuel-oil filters and fuel transfer pump are on the opposite side.

The valves are of alloy steel, located in the heads and actuated by rocker arms. The fuel injection system uses unit injectors with individual injection pumps at each cylinder. Engine speed is controlled by a Woodward governor. An independent overspeed stop is also provided.

### Electrical Equipment

Lubrication is by means of a pressure pump, chain-driven from the crank shaft. The oil supply is contained in the bed-plate sub-base and is cooled by radiators mounted with the cooling-water radiators. An automatic device shuts the engine down when the lubricating-oil pressure reaches a predetermined minimum value.

Engine cooling is effected by means of a chain-driven centrifugal water pump. Included in each system is an expansion tank with pipe connection for filling, draining and stand-by heating.

The electrical transmission equipment is of Westinghouse manufacture. Two Type 480-B generators furnish power to the four traction motors of each cab, one generator supplying power to motors 1 and 2, which are connected permanently in series, and the other supplying power to motors 3 and 4. Each generator frame is supported from its engine bed plate and the armature is connected directly to the crankshaft, the armature shaft having one self-aligning roller bearing. A multiple-Vee-belt pulley on an extension of the armature shaft drives an auxiliary generator-excitor set which is mounted on the main generator frame. A starting field in the main generator permits starting the engine from the battery by using the generator as a motor.

The four Westinghouse 370-B traction motors are nose-suspended and geared to the outer axles of each truck. The gear ratio is 21:58 and the maximum speed 90 m.p.h. with worn wheels.

The motors are force-ventilated, air being supplied by separate fans. Class B insulation is used for both the motors and the generators.

The auxiliary generator of the generator-exciter set supplies power for charging the 56-cell storage battery and for the control and lighting circuits. A voltage regulator holds a constant voltage on the auxiliary generator at all engine speeds. The exciter is of the differential type and furnishes power for exciting the fields of the main generator. Both the auxiliary generator and the exciter are insulated with Class B insulation.

The control system utilizes both electro-pneumatic and electro-magnetic contactors and provide for two steps of

traction-motor field shunting. Transition from full field to the shunted field positions is automatic. The governor operator is of the pneumatic type, a movement of the throttle handle resulting in a corresponding movement of the governor operators on each of the two engines.

The unit switches connecting the generators and traction motors are of the electro-pneumatic type and are equipped with blow-out coils and arc chutes. The reversers are of the electro-pneumatically operated drum type. Magnetic contactors are used for the field circuits. Wheel-slip relays automatically reduce engine speed and power when wheels slip and also give an audible indication in the operating compartment. Westinghouse Autoload control is used in conjunction with the differential exciter to provide full utilization of engine power.

#### Partial List of Material and Equipment on the Baldwin-Westinghouse 4,000-Hp. Diesel-Electric Locomotive

<b>Power Plant:</b>	
Fuel injection system	Bendix Aviation Corporation, Scintilla Magneto Div., Sidney, N. Y.
Lubricating oil filter	Puralator Products, Inc., Newark, N. J.
Engine governors	Woodward Governor Company, Rockford, Ill. Eickering Governor Company, Portland, Conn.
Air filters	Burgess Battery Company, Acoustics Div., Chicago.
Mufflers	Maxim Silencer Company, Hartford, Conn.
Radiator shutter control	Minneapolis-Honeywell Regulator Company, Minneapolis 8, Minn.
V-belts	Dayton Rubber Mfg. Company, Dayton 1, Ohio.
Radiators	Modine Mfg. Company, Racine, Wisconsin.
Air compressors	Gardner-Denver Company, Quincy, Illinois. Westinghouse Air Brake Company, Wilmerding, Pa.
Radiator fans	Buffalo Forge Company, Buffalo, N. Y.
Cab windows	Hunter Sash Company, Inc., Flushing, N. Y.
Defrosters	Diehl Mfg. Company, Somerville, N. J.
Sanders	The Prime Manufacturing Company, Milwaukee 4, Wisconsin.
Headlight, classification lamps	The Pyle National Company, Chicago 51, Illinois.
Air horn; brake equipment	Westinghouse Air Brake Company, Wilmerding, Pa.
Operating compartment seats	Heywood-Wakefield Company, Gardner, Mass.
Speed indicator	Jones-Motrola Sales Company, Stamford, Conn.
Vestibule curtain	The Adams & Westlake Company, Elkhart, Ind.
Pipe covering, soundproofing	Johns-Manville Sales Corporation, New York.
Couplers	Buckeye Steel Castings Company, Columbus, O.
Draft gear	W. H. Miner, Inc., Chicago.
Steam generator	Vapor Car Heating Company, Chicago 4.
Steam-heat connectors	Barco Manufacturing Company, Chicago 40.
Roller bearings	Timken Roller Bearing Company, Canton, Ohio. SKF Industries, Philadelphia, Pa.
Truck wheels; truck axles	Standard Steel Works, Division, The Baldwin Locomotive Works, Philadelphia, Pa.
Trucks	General Steel Castings Corporation, Eddystone, Pa.
Truck-brake equipment	American Brake Div., Westinghouse Air Brake Company, Swissvale, Pa.
Wheel-slip indicator	Westinghouse Electric & Manufacturing Company, E. Pittsburgh, Pa.
Hand-brake equipment	National Brake Company, New York.

#### Trucks and Draft Gear

Each cab is carried on two General Steel Castings Company's six-wheel pedestal-type trucks having one-piece frame construction, side equalizers, coil springs and with the swing bolsters carried by elliptic springs at the four corners of the bolster. The front and rear axles of each truck are the driving axles, the center axle being an idler. The brakes are of the clasp type with flanged brake shoes. The brake cylinders are located on the truck frames. The axles are mounted in roller bearings and the truck wheels are 40 in. diameter.

The operating brake equipment is Westinghouse Air Brake Company's Schedule 24-RL with pedestal brake stand and self-lapping brake valve. Automatic and straight air brakes apply on all wheels, with train-line connections at both ends of each locomotive unit. A hand brake is connected to one truck, with the operating handwheel in the engine compartment. Air is supplied by a belt-driven two-stage compressor at each power plant. Two reservoirs having 44,530 cu. in. capacity are suspended from the underframe.

#### General Characteristics of the Baldwin-Westinghouse 2,000-Hp. Diesel-Electric Locomotive (A Unit)

Diesel engines, two, eight cylinders (in line), 1,000 hp. each	2,000
Traction motors:	
Number	Four
Maximum speed restriction, m.p.h.	90
Gear ratio	21:58
Wheels:	
Driving, pairs	Four
Idling, pairs	Two
Diameter, in.	40
Weight in working order, total, lb.	380,000
Wheelbase, ft.-in.:	
Each truck, rigid	15-4
Total locomotive	64-4
Maximum overall locomotive dimensions, ft.-in.:	
Height	14-9
Width	10-6
Length, inside knuckles, A unit	80-0
Tractive force, lb.:	
Starting, at 30 per cent adhesion	76,200
Continuous at 21.5 m.p.h.	28,500
Minimum radius curvature, locomotive with train, ft.	359
Fuel oil, gal.	1,200
Lubricating oil, gal.	220
Engine cooling water, gal.	580
Heating-boiler water, gal.	1,200
Sand, cu. ft.	30

Friction draft gear is applied to both ends of the locomotive. Train heat is supplied by a Vapor-Clarkson steam generator having a capacity of 2,500 lb. per hr. This unit is self contained, with automatic controls and necessary gauges.

#### Reading Mortgage

(Continued from page 706)

tion, Pa.; with the Lehigh Valley at Bethlehem and Allentown, Pa., and at Weston-Manville, N. J.; with the Lehigh & New England at Tamaqua and Catasauquau, Pa.; with the Pennsylvania-Reading Seashore Lines at Camden, N. J.; and with the Delaware, Lackawanna & Western at Rupert, Pa.

Anthracite and bituminous coal represent two of the most important commodities transported by the Reading. In 1944 they accounted for 30 and 26 per cent, respectively, of the road's freight tonnage and 22 and 20 per cent, respectively, of freight revenues. The manufacturers and miscellaneous tonnage, which is well diversified with the most important items being iron and steel articles, scrap iron and steel, cement, petroleum oils, pig iron, brick, canned food products, automobiles and machinery, provided 30 per cent of the revenue freight tonnage and 45 per cent of freight revenues. The bituminous coal tonnage is received from connections, while substantially all of the anthracite tonnage and a considerable portion of the manufactures and miscellaneous tonnage originates on line. According to the "Pennsylvania's Mineral Heritage" published by the state of Pennsylvania, the western middle and southern anthracite fields, which are served by the company, contain the largest reserves of recoverable anthracite in the United States.

Prior to the war, the company's passenger traffic had been materially reduced by bus competition and private automobiles and it is reasonable to suppose that this condition will recur in the future. In 1944 this traffic contributed 9 per cent of total operating revenues.

#### Industrial Development

Twenty-seven new industries, of a diversified nature, were reported established in Reading territory last year. It is estimated that in 1944 these new industries provided over 8,900 cars of freight, producing revenues of approximately \$431,000 during those periods of the year they were in operation, and that the traffic should amount to over 16,500 cars with resulting revenues of about \$795,000 annually. A large percentage of the industries now served by the road that are engaged in turning out war-time products are of such nature as to indicate their permanence, with the prospect of substantial future business in post-war years.

# Do the Railways Want College Men?

**Schools report that students are not attracted to transportation courses because of the almost universal indifference to them on the part of the roads**

**I**N continuation of its efforts to develop a sympathetic understanding of the related problems between the railways and the colleges and universities, looking to the suitable training of students in rail transportation with the view of their subsequent employment by the railways, the Committee on Cooperative Relations with Universities of the American Railway Engineering Association endeavored during the last year to ascertain what the schools are doing and what they propose to do in arranging for new curricula, or in the continuation of old curricula, that will fit young graduates for employment in the railway industry.

## A Letter to 38 Schools

To this end, one of its subcommittees, of which E. M. Hastings, chief engineer of the Richmond, Fredericksburg & Potomac, was chairman, addressed a letter to the heads of 38 schools of engineering, asking full and frank comment. The replies in most cases detailed the character and scope of present and proposed curricula pertaining to transportation matters, and, almost invariably, disclosed a sympathetic attitude toward, and keen interest in, the problems of the railways. Many of the replies raised basic questions as to the interest of the railways themselves in what the colleges are doing to train young men in transportation, and as to the opportunities for their students after graduation—questions which cannot go unanswered indefinitely if the railways are to expect full cooperation on the part of these institutions.

The letter which was written by the committee follows:

"The American Railway Engineering Association is endeavoring to obtain a sympathetic understanding on the part of railway executives of college and university problems, and on the part of the colleges and universities an understanding of railway problems and the broad field of railway transportation activity that lies open to college and university graduates, particularly graduates in engineering. It is understood that a number of the universities have been reviewing their curricula with the idea of eliminating courses for which there is little demand and that unless the railroads indicated considerably more interest in college men than in recent years there will be little desire on the part of universities to retain their courses in railway engineering. This letter is writ-

ten in order to obtain from you full comment on this matter from the standpoint of your institution. The field of railway transportation engineering is broadening rather than lessening, and there are great opportunities for young men coming out of our colleges and universities to find challenging and lucrative employment with the railways. It is definitely a cooperative matter. The railways cannot be expected to employ any large number of college men upon graduation unless those men have some fundamental or foundation work that will especially fit them for the rail transportation field, particularly in the engineering branches. In turn, if the railways do not make a bid for these young men that at least meets that being made by other industries, they cannot expect to secure them. Working together, however, it is felt that a profitable field of endeavor opens to the young college graduate who takes employment with our railways. Our committee believes that our engineering educational institutions should set up adequate courses in transportation engineering."

## What the Colleges Said

Some of the schools discussed their curricula at some length and explained that they had dropped many of the subjects relating to transportation because

of the apparent indifference of the railways to the employment of college-trained men. They cited the practice of other industries which are so eager to obtain the services of the better graduates each year that they send representatives to the schools to interview and select the most promising members of the senior class. Following are excerpts from the comments received from some of the colleges:

*University of California.*—"Since, in recent years, few of our graduates have been interested to enter railroad service, we have found it desirable to broaden the scope of our transportation courses and to include in them a good deal of material applying to highway transportation and construction. For some reason, jobs in the engineering departments of the railroads have not, for a number of years, been attractive to our graduates. They appear to have had little encouragement from railroad officers."

*California Institute of Technology.*—"Your letter is one of the most encouraging communications which has been received in a long time, since I interpret it as representing a revival on the part of the railroads of interest in engaging college graduates for careers in the railroad industry. It had become customary under peace conditions for various employing agencies to send interviewers



**Many Men Now Holding Responsible Positions on the Railways Passed Through Student Corps Similar to This One**



several months prior to graduation for the purpose of selecting prospective graduates who would be adapted for and interested in joining the respective organizations. The railroads should be able to make such contacts with graduating classes and employ young men of ability and suitable qualifications, who might be interested in developing their careers in railroad service."

### Emphasize Highway Engineering

*The Citadel.*—"We have emphasized highway engineering rather than railroad engineering, because only a very small number of our men entered railroad service. At present I doubt if we have more than 15 or 20 men in railroad service. There has always been a feeling among our students that the railroads had some sort of a prejudice against college men, that they preferred men who had come up the hard way. This is undoubtedly an erroneous view, and one which, I think, can be readily dissipated by the work of your committee. What I should like to see is a definitive statement from the A. R. E. A., or from some other group that can speak with some authority for the railroads, of just what the opportunities will be for young graduates in the future; just what will be expected of them; what sort of education they should have; what personal qualities are most desired; and a categorical statement that the railroads are interested in employing young graduates."

*Duke University.*—"My final conclusion was, why waste so much time on a field of instruction in which no one seems interested. For that reason, our instruction in railroad subjects is now down to the minimum. The colleges have gone out of their way in the past only to be rebuffed by the railroads. I have preached for years about the unfairness of the bus and truck competition, considering how taxes are assessed."

*Iowa State College.*—"For many years we have been urging our friends in the railway engineering field to outline for us a list of subjects in which young men who come with them should have some proficiency. The important thing to keep clear is what items of instruction are definitely fundamental and within the province of the school, and those which are definite applications that should be learned after the young men have taken jobs. A cooperative plan of employment, professional or summer employment by the railway companies, would help to interest young men in following railway engineering as a career. Some educational efforts will have to be expended on engineering teachers who give advice to young men."

*Louisiana State University.*—"The first job I held after graduation in civil engineering, in 1908, was on construction for the Southern Pacific. At that time a number of our graduates were working for the railroads. However, gradually fewer and fewer of our graduates took these jobs until in the last 10

or 15 years practically none of our men go into this field. If the railroads can work out some plan whereby students can see a future, I would certainly encourage some of them to go into this field."

*Massachusetts Institute of Technology.*—"In recent years the railways have seldom sent representatives to the colleges to interview the students and to interest them in railroading as a career. Occasionally railways have made inquiries when they had a specific vacancy to fill, but they have not attempted to build up their organizations by receiving a regular influx of capable young men trained in engineering. Other industries have done this on a very broad scale. I do not believe that the situation can be improved until the railways show more encouragement to engineering students by making them definite offers of employment under such conditions that they will have an opportunity to advance in the railway field to the same extent as they are able to in the other industries."

*University of Michigan.*—"We are interested in co-operating with the railroads and have done so to the best of our ability. I would be pleased to learn of any new plans, which will guarantee to young engineers more than seasonal employment. In the past too many young engineers have left the railroad field because of the uncertainty of tenure, except during the construction season."

*Ohio State University.*—"Since all transportation systems must be connected intimately, it does not seem feasible to formulate a course in railway transportation and neglect the rest. An extra year devoted entirely to transportation might make a *transportation engineer*. If the railroads require special maintenance training in the graduates they want, such training can be given only at the expense of other courses, either required or elective, in the standard four-year course, or by lengthening the required course to five years. In either event it would seem to be incumbent upon the railroads to offer graduates an attractive inducement in the form of an entrance salary that is at least equal to that offered in general industry, and assurance of reasonably rapid promotion and durability of position if the student employee shows promise."

### Has Some Presidents

*Purdue University.*—"We have always considered railway engineering to be an important and promising field for our civil engineering graduates. A number of our graduates every year have gone into railroad work and some have risen to positions of chief engineer and president. Generally speaking, however, the railroads have not been particularly sympathetic toward college graduates. If the railways expect to get very many college graduates, they will have to compete with industrial corporations which make a definite bid for our stud-

ents. Every year we have 100 or more representatives of industry on our campus looking for our seniors. The large industries have apprentice courses and generally offer rates of pay which are very attractive. If the railways want college graduates who have had college work in the transportation field, it will be necessary for them to formulate plans for getting men who have had five years of college work. The industries have found this necessary and have arranged for the fifth year to be taken either on a fellowship or by extension courses which are given either at the plant or by correspondence. Purdue is extending its extension work very widely. We have set up a Technical Institute program for adult education on a college level, but not for college credit, and we are now considering offering extension courses for college credit. Because of a lack of interest, however, none of this work is in the railroad field."

*Swarthmore College.*—"When the railroads hire college men they should hire them with the realization that they must give them practical training after they get on the job, that they must familiarize them with the railroad. They should keep in mind always that these men are to be professional men and that their great value to the railroad will come from their ability to analyze problems, their ability to think out new ways of doing things. These men should be prospective leaders. They should be the ones who will carry the administrative burden in a few years. This type of man will be worthless unless he is given an opportunity to think."

### Revitalizing the Industry

*University of Texas.*—"If a sufficient number of executives in the railroad field would follow your leadership, it would offer a solution to some of the problems facing the railroad industry. I will be glad to join with you in giving assistance to revitalize the industry. I doubt whether the course in railway engineering is seriously involved. I think it is primarily a problem of the attitude of top management of our American railroads."

*Tulane University.*—"Opportunities for employment in the past have been few and the rewards small, in comparison with opportunities in industry relating to engineering. It is seldom that the representative of the engineering department of a railroad visits us to look over the men about to graduate and to discuss with them the possibilities of employment; yet this is quite a common practice on the part of our great industries, and they get the cream of the crop."

*University of Virginia.*—"In the last 20 years few of the engineering graduates of the University of Virginia have taken positions with the railways. The railways will have no difficulty in getting engineering school graduates when they set up a schedule of positions of equal opportunities and equal pay to that

which has existed for some time in commercial and industrial fields of engineering. When your committee has formulated a program, we will be delighted to cooperate with you as far as seems justifiable under the circumstances. If that should mean the installation of certain new courses, particularly in the field of railway transportation, that could be arranged, provided there were definite and attractive opportunities for our graduates in this field."

*University of Washington.* — "We have often wondered why the market for graduate engineers in such an important industry as the railways has fallen almost to zero, while in other types of industries there has been a gradual and substantial increase in jobs available to engineers. In view of what has happened, it is not to be wondered that colleges have tended to reduce the number of railway courses made available to engineering students. The railroads have been a closed corporation for our graduates, except for a call now and then for a rodman or chainman, and they have evidenced no interest in our courses, equipment or graduates. If the railroads are sincere in their efforts to establish a co-operative relationship with the colleges of engineering, sincerity must be evidenced by a specific policy on their part. I would suggest three definite actions. First: Let the railroads see that office positions as well as field positions are available to our graduates. Let the railroads get away from their nepotism so that our graduates will

feel that the railroads will offer them something more than temporary employment as a rodman or chainman. Second: Let the railroads furnish the engineering colleges giving courses in railway transportation, certain equipment and exhibits which will not only stimulate interest in railway engineering but which may be used for instructional purposes. Third: Let the railroads subsidize certain research work in the way of scholarships in railway transportation."

### Railways Did Not Hold Them

*University of Wisconsin.*—"Our failure to place graduates in the railway field has not been the result of policy on our part. At first, I was able to place men, but the railways did not hold them. Gradually it became evident that it was not a good thing to try to place men with the railways. Railway work was, and still is, appealing to young civil engineers, and it would be easy to direct graduates into that field if there were certainty that they would be satisfied there. But high-grade men will not be content unless their progress is comparable to that of their classmates in other fields of activity. Any scheme for employing college-trained men in the railway field must take this into account. When the railway field offers an attractive outlet for our graduates, we will undoubtedly have more courses in railway subjects in our curriculum. If the railways sent competent recruiting officers to the colleges and selected care-

fully from among the best of the graduates, they would find that they had most excellent material for railway service, even though the men had not specialized in railway engineering. The railways can begin immediately to recruit new graduates, without waiting for special courses in railway engineering to be set up. The railways will have to modernize their personnel policies, however, if they plan to keep their recruits. They must have suitable methods for recruiting, satisfactory training course, and adequate supervision over the progress of the recruits."

### Committee Conclusions

The committee believes that a careful reading of these comments will lead to the conclusion that there is needed a well-thought-out program of co-operative educational work, to be worked out between our committee and representatives of our leading engineering educational institutions; in all probability this could be accomplished by working with the Committee on Engineering Education of the American Society of Civil Engineers. The importance of this matter to the railways cannot be over-emphasized.

The future or post-war period will place upon the railways the burden of preparing for an intensified competition in the transportation field, and railway organizations will need well trained, aggressive young men to carry the future responsibilities.



U. S. Signal Corps Photo

### More Work for Army Railroaders

This Is What Happened to the Railway Station at St. Valery en Caux, France, When the Brakes on a Locomotive Froze and Caused It to Crash Through the Structure — The Transportation Corps Had to Call in a Railway Operating Battalion and Employ a Rail Crane to Remove the Locomotive from the Building—Note Box Car, Also a Casualty from the Same Accident





# How to Achieve Transport Coordination

**This goal, so frequently proclaimed and so feebly pursued, can be attained only if all types of transport are made equally self-sustaining from their own revenues**

NOAH WEBSTER gives two definitions of "coordinate"; the first is "to make equal in rank, not subordinate"; the second "to bring into common action, to harmonize." When we speak of coordinated transportation, we mean that each form of transportation will receive equal treatment from the people and from the government so that it will provide the service for which it is best fitted; and that all forms of transportation will function together efficiently as integral parts of a complete system of transport.

Ever since the early colonial days, the transportation services used to convey persons or goods from the first place of origin to the final place of destination have supplemented each other, but that is not coordinated transportation within the real meaning of the term. Coordinated transportation was at its peak so far as efficiency was concerned about the time of the first World War. Bus and truck transportation on the highways was in the early stages of development. Commercial air transportation had not yet come into being.

The railroads and domestic water transportation had finally found their respective places and were working together to provide joint rail and water service for the transportation of freight and passengers, wherever that type of service was efficient and economical. There was little duplication of transportation facilities, and wasteful competition between the railroads and the water lines had very largely come to an end. Every community had a well-organized system of local transportation to carry freight and passengers to and from the railroad stations, and in the communities that were ports similar service was provided to and from the piers of the water lines.

## Wasteful Competition

Following the first World War, there was a change in public policy in this country with respect to transportation. For the first time, our federal and state governments began to spend huge sums from public funds to develop waterways, highways, and airways, which, to a very large extent, duplicated the facilities of the railroads. The duplication of transportation facilities at the expense of the taxpayer and the unequal treatment of the different forms of transportation by the government has resulted in wasteful competition and a gradual breaking down of the efficiency and economy of our national system of transport.

This article is an abstract of an address to the New England Railroad Club on April 10.

**By F. J. WALL**

*Vice-President, New York, New Haven & Hartford*

So that we may have a better understanding of present-day conditions and the results of the change in our public policy concerning transportation, we might well at this point review the history of transportation in this country.

For the first 200 years after the colonists settled here, the people were dependent on transportation provided by sailing vessels and by carts and wagons drawn by horses, oxen and other beasts of burden. These same forms of transportation had been in existence since the very beginning of civilization. Because the people were almost entirely dependent on water transportation, the early settlements, of necessity, were located along the seacoast and on the banks of navigable rivers.

## Self-Sustaining Transportation

The first development of transportation facilities in this country was the canals, constructed during the early part of the 19th century. While a few of the canals were financed and constructed by the states in which they were located, by far the greater number were private enterprises, but whether the canals were privately owned or owned by the state, tolls were always collected from those who used them, to pay the cost of construction, maintenance and operation. In those days, it was a fundamental principle of our government that transportation must be self-sustaining and those who used the service must pay the full cost.

Then came the steam engine. Steamboats replaced the sailing vessels that had operated along the coast and on our navigable rivers. Steam railroads were built to replace the stagecoach lines which operated on the post roads and had provided the only regular transportation on land. Our first railroads were built to transport passengers. Transportation of freight by railroad was a later development. The first railroad cars were nothing more than stagecoach bodies mounted on flanged wheels that would run on rails.

The original railroads were generally short lines built to connect two cities or towns, replacing stagecoach service. The early railroads did not connect with each other. Often the track gage was different and equipment could not be interchanged. It was not until some years later that the different railroads

were connected with each other and the track gage and equipment were standardized to permit the interchange of cars and the through transportation of freight and passengers.

The railroads made it possible to settle every section of the country and develop our tremendous natural resources. Today, we have a huge network of railroads which connects practically every city, town, and village until there is no place of importance in this country that is not served by railroad.

As railroad transportation improved and was developed, water transportation declined, and, with the exception of the important coastwise and Great Lakes services, passed out of existence. Extensive long-haul transportation by highway had never been an economic possibility.

At the beginning of the first World War, transportation in the United States had come to mean railroad service, and practically all of the country's freight and passenger traffic moved by railroad. No other form of transportation could compete with the railroads from the standpoint of efficiency or economy.

The change in our public policy with respect to transportation was a result of the 16th amendment to the United States Constitution which was ratified and became effective in 1913. This amendment provides that "the Congress shall have the power to lay and collect taxes on incomes from whatever sources derived without apportionment among the several states and without regard to any census or enumeration."

## Harm Arose with Income Tax

Income taxes have provided the funds for the federal government to do many things that were not considered a proper activity of the government, prior to the first World War. This is particularly true of the tremendous expenditures that have been made to build transportation facilities to compete with the railroads.

Today, we have four kinds of transportation—railroad, water, highway and air—engaged in carrying freight and passengers between points in the United States.

The investment in the American railroads amounts to \$25,400,000,000. Only about one-fourth of that amount, \$6,600,000,000, is the investment in equipment. The other \$18,800,000,000 is what it cost the railroads to provide their own roadway. Each year, it costs the American railroads an average of



\$1,325,000,000 to own and maintain their roadway. In 1940, it required 30 per cent of the total revenues of the railroads to pay this roadway expense. The taxes on the roadway alone were \$340,000,000, or 8 per cent of the total railroad revenues.

The situation is quite different with respect to the other forms of transportation. We will first consider domestic water transportation. This country abounds in natural harbors and waterways. Early in the 19th century, our federal government took over all of our navigable waterways and placed them under the jurisdiction of the United States Army Engineers. While the navigable rivers were maintained, waterway improvements were confined to the harbors of our principal ports of foreign trade.

### Moving the Sea Inland

After the first World War, this policy was changed. There has been an intensive effort to increase domestic transportation by water without any regard to the economic justification. Every city and town located along the coast or on a river had the ambition to become a seaport. Cities located on rivers wanted the rivers deepened to accommodate larger vessels. Many cities in the interior demanded that canals be built by the federal government so that they too would be provided with water transportation.

The development of waterways and seaports became a matter of local pride. Where we formerly carried the freight to the sea, we began carrying the sea to the freight. The tremendous expenditures involved became "pork barrel" politics. More than \$2,000,000,000 have been spent by the federal government for waterway improvements to develop domestic water transportation. The interest alone on this investment at two and one-half per cent, which is the current interest rate on government loans, exceeds \$50,000,000 per year.

It costs more than \$100,000,000 each year to maintain the waterways, to provide the extensive systems of light-houses, buoys, radio beacons, etc., that are required to aid and protect water transportation. No tolls are collected from those who use the waterways; rather, all of the waterways are constructed, improved and maintained at the expense of the taxpayers. The people of the six New England states pay an average of 10 per cent of the cost of government in this country. Accordingly, of the more than \$2,000,000,000 which have been spent by the federal government for waterway improvements, 10 per cent, or \$200,000,000, must be paid by the people of New England.

Each year, it is costing the people of New England more than \$10,000,000 as their share of the annual expense of \$100,000,000 for maintaining the waterways, most of which are located in other sections of the country.

The New York State Barge Canal system was rebuilt beginning in 1905, even though experience had proved no

canal could carry freight as cheaply as a railroad if all costs were included. The New York State Barge Canal system is 525 miles long, and the total cost of rebuilding has been \$195,000,000. Each year, the canal costs the taxpayers of the State of New York \$10,400,000 to pay the interest on the bonds issued to rebuild the canal and for the annual expense of maintenance and operation.

In 1940, there was a total of 4,700,000 tons of freight which moved on the barge canal, so that the taxpayers of the State of New York contributed an average of \$2.21 per ton towards the actual cost of the transportation of this freight. The principal item of traffic was petroleum and its products. Next in volume was grain. Pig iron, steel and scrap iron were the third in importance.

It is true that the few large companies who use bulk commodities in such volume that they can be transported on the canal are able to reduce their transportation expense as compared with the cost of railroad service, but only because the taxpayers of the State of New York are paying the major part of the actual cost of transportation. There is a railroad which runs from New York to Oswego and Buffalo and serves practically the same territory as the barge canal. In 1940, that railroad received an average revenue of \$1.78 per ton from all of its freight traffic, from which it paid not only the cost of providing the equipment and moving the freight, but also the expense of providing and maintaining its own roadway.

The people of New York State could have paid the railroad its average revenue per ton to carry all of the freight that used the canal, furnished the shippers with free transportation and still have saved 43 cents per ton, or more than \$2,000,000, as compared with \$10,400,000 it cost the state to own, maintain, and operate the barge canal.

### A 'Costly' Asset

We are told that waterways are a great asset to this country. Let us compare the New York State Barge Canal with the railroad from that standpoint. The railroad system is comprised of 1,000 miles of railway lines, 475 miles more than the New York State Canal System. The total capitalization of the railroad is \$206,000,000, or only \$11,000,000 more than it cost to rebuild the barge canal. The railroad investment includes not only the roadway, but all of the terminals, locomotives, cars, and other equipment required to provide a complete transportation service.

The cost of the canal covers only the waterway and some few terminal facilities. The railroad is operated throughout the 12 months each year, while the canal is closed by ice every year from four to five months.

In 1940, the railroad carried 22,500,000 tons of freight, or nearly five times the traffic that moved on the barge canal. The railroad also carried more than 20,000,000 passengers. The railroad paid the interest on its capital invest-

ment and taxes amounting to \$5,400,000. The canal paid no taxes, and the taxpayers received no return of any kind from their investment in that waterway.

What I have said about the New York State Barge Canal is typical of the entire waterway development. The taxpayers contribute the greater part of what inland water transportation actually costs. The State of New York is now trying very diligently to have the federal government take over the Barge Canal, maintain and operate it, and it is easy to understand the reason.

We now come to highway transportation—a very complicated and a very controversial subject. It is complicated because in addition to being used by the general public in their private motor vehicles, the city streets, town roads, and state highways are used intensively by large motor trucks and motor buses for commercial purposes and for profit.

It is controversial because the advocates of commercial highway transportation, principally the manufacturers and operators of trucks and buses, claim that motor vehicles should be required to support only the state highway systems and that the cost of constructing, maintaining and policing city streets and town roads should be paid by taxes on real estate because the streets and roads are a community benefit.

### Highway Upkeep

Before the advent of automobiles, city streets and town roads were generally built at the expense of the adjoining property owners and were maintained by taxes on real estate. Few streets and no town roads were surfaced. The annual expense of the cities and towns for the construction and maintenance of streets and roads averaged only \$1 per capita of population. Since automobiles have come into general use, it has been necessary to rebuild every city street and town road and make it a surfaced highway. The expense for building and maintaining city streets and town roads and for highway policing has increased to an average of \$10 per capita each year.

In addition, a vast system of surfaced highways has been built at an expense of many billions of dollars to connect the cities and towns. In the beginning, these connecting highways, which are now the state highways, were financed by bond issues and by state and local taxes. In recent years, motor vehicle fees and gasoline taxes have paid a substantial part of the expense of the state highway systems, but have contributed very little towards the cost of building and maintaining city streets and town roads.

The automobile has had a very detrimental effect on the larger cities. A substantial part of the former population of the cities has moved into the suburbs, thereby reducing the value of city real estate and the revenues which the city receives from real estate taxes. The people, however, continue to work in the cities and use their automobiles to travel

between their homes and places of business. During recent years, city streets have been badly congested with parked automobiles, and the expenses of the cities for construction, maintenance and policing of the city streets have increased tremendously.

### The Case of Massachusetts

Almost every large city in the country is in financial difficulty. Real estate taxes in the cities have become almost prohibitive, not only to property owners but to business generally. The railroads have a great interest in the problem because they are usually the largest taxpayers in each city.

Under the existing conditions, as I have described them, no sound reason can be advanced why real estate should be taxed to pay any part of the cost of building, maintaining and policing state highways, city streets, and town roads; rather, the entire expense should be borne by the motor vehicles which use them.

Before the war, the Commonwealth of Massachusetts, the cities and towns were spending an average of \$76,400,000 per year for the construction and maintenance of all of the surfaced highways, roads and streets, for traffic lights, for policing the highways, and for the operation of the Motor Vehicle Department. Investigation has shown that an annual expenditure of not less than \$76,000,000 per year will be required to maintain an adequate system of state highways, city streets, and town roads for the accommodation of motor vehicles.

While an average of \$76,000,000 per year has been spent for highway purposes in Massachusetts, the motor vehicles have contributed only \$23,000,000 in the form of motor vehicle fees of all kinds and gasoline taxes, leaving \$53,000,000 to be secured from other sources, principally taxes on real estate.

In 1940, there were 903,843 motor vehicles of all types registered in Massachusetts. Of the total, 885,767, or 98 per cent, were private passenger automobiles and small commercial vehicles of the same size and gross weight as passenger automobiles. There were only 18,076, or 2 per cent of the total, which were the big motor trucks and motor buses using the state highways, city streets, and town roads for commercial purposes and for profit. \*

To accommodate these 18,000 motor trucks and buses that are bigger than passenger automobiles, it has been necessary to reduce grades, remove curves and build wider and heavier highways than would be required if the use of the highways was confined to passenger automobiles and the small commercial vehicles. Those items of added construction; namely, reduced grades, wider and heavier highways, are responsible for 28 per cent of the total annual expense for the construction and maintenance of state highways, city streets, and town roads in Massachusetts.

It has cost an average of \$20,000,000 each year to adapt the highways and

maintain the highways in Massachusetts for the accommodation of the big motor trucks and motor buses. Were it not for these big motor vehicles, the annual expenditure for highway purposes in Massachusetts would be \$54,000,000 per year instead of the \$76,000,000 per year that is spent in normal times.

Passenger automobiles are operated an average of 7,000 miles per year. In comparison, the big motor trucks and motor buses are operated an average of 30,000 miles each year. Because of their great size and weight and because of the very intensive use which they make of the highways, the 18,000 big trucks and buses represent 36 per cent of the ton-mile use of the state highways, city streets, and town roads. Passenger automobiles account for only 64 per cent of the ton-mile use of the state highways, city streets, and town roads.

The big motor trucks and motor buses should pay \$41,356,000 each year for using the state highways, city streets, and town roads in Massachusetts. At present, they are paying only a total of \$3,367,000 in the form of motor vehicle fees and gasoline taxes. The other \$38,000,000—an average of \$2,000 per year for each big motor truck and motor bus registered in Massachusetts—is being collected from the taxpayers.

The \$38,000,000 collected each year from the taxpayers of Massachusetts which should, in all fairness, be paid by the big motor trucks and motor buses, is equal to an average of \$1.40 for each ton of freight that is handled by the over-the-road truckmen and an average of 90 cents for each passenger that travels on a long distance motor bus. It is argued, and quite aggressively, by the motor vehicle interests that motor trucks and motor buses should not pay anything toward the cost of construction, maintenance, and policing of city streets and town roads.

You know from observation the number of long distance motor trucks and motor buses which use the streets of Boston. You also know that these long distance trucks and buses, which compete with the railroads, do not contribute one cent towards the expense of maintaining and policing the city streets. The three railroads serving Boston, on the other hand, are required to pay real estate taxes on their terminals and other property amounting to \$4,500,000 per year.

### The "Reciprocity" Ruse

There is another situation which seems indefensible and that is the "reciprocity" between the states with respect to the operation of long distance motor trucks and motor buses. Everyone will agree that there should be reciprocity between the states so far as the private automobiles of the general public are concerned, but the same reasons do not exist with respect to the motor trucks and motor buses which are making a commercial use of the state highways, city streets, and town roads for profit.

During the past few years, we have heard a great deal about "state barriers." The manufacturers and operators of motor trucks and motor buses argue that if a commercial vehicle is registered in one state it should be permitted to operate in all states without restriction. If the railroads owning and maintaining their own roadways are required to pay taxes in each state, city and town in which they operate, certainly no good reason can be advanced why any motor truck or motor bus, making commercial use of the public highways for profit, should not be registered in each state in which it operates and pay its fair share of highway expense.

The air lines are the most recent development in transportation. The first commercial air line began operating in 1926 to carry mail. It was not until three years later, in 1929, that commercial air lines became a factor in the transportation of passengers. During the past few years, the air lines have also handled express.

### Costly Mail Service

There are more than 30,000 miles of lighted radio equipped airways in the United States which cost our federal government \$15,000,000 each year to maintain and operate. Each year, the Civil Aeronautics Board is spending several million dollars for airplane inspection service. The weather bureau is spending a similar amount to provide special weather service for the air lines. In addition, the 17 commercial air lines operating in this country were successful in having the Post Office Department pay them more than \$20,000,000 each year for carrying mail. What the air lines have received for carrying mail has paid a very large part of their operating expenses.

The 135 Class I railroads of the country were paid a total of \$101,000,000 in 1940 for carrying the United States mails of all classes, including parcel post. This was only five times the amount paid to the air lines. The small amount of mail carried by all of the air lines could have been handled by the railroads in the mail cars and mail space that was operated without any additional expense to the Post Office Department.

The payments by the federal government to support, develop, and maintain air transportation are averaging \$40,000,000 per year. But that is only part of the story. The different states, cities, and towns have invested more than \$200,000,000 to provide airports. In almost every instance, bonds were issued to obtain the money spent on the airports and at 3 per cent the interest amounts to \$6,000,000 per year.

Each year, large deficits have been incurred in the operation of the airports which have had to be made up from taxes. During the past few years, the interest on the bonds issued to build the airports and the deficits incurred from operating the airports have amounted to more than \$20,000,000 per year. Can you imagine what would happen if any



railroad should be so bold as to suggest that a state or city should build a railroad station to be used by the railroad at the expense of the taxpayers? Yet the railroad station would serve several thousand people for each person that is served by any airport.

It is difficult to understand the workings of the minds of certain members of Congress concerning air transportation. In discussing the future of air transportation, one member of Congress stated that there were only \$39,000,000 invested in all of the commercial air lines operating in the United States and that this compared with \$60,000,000 which had been invested by the railroads in Grand Central Terminal, New York.

Certainly the member of Congress must have known that the investments of the air lines covered only their airplanes, as all other facilities used by the air lines are furnished by a benevolent government. The member of Congress must have known also that LaGuardia Field, the airport in New York which is comparable to Grand Central Terminal, cost the taxpayers more than \$50,000,000 to build under the guise of a W. P. A. project.

It is equally difficult to understand the workings of the minds of people engaged in air transportation. In answer to a Civil Aeronautics Board order to show cause why its mail pay should not be reduced from 60 cents per ton-mile to 32 cents per ton-mile, one of the principal air lines stated that any such reduction would reduce its total revenue by \$3,838,000 per year, when it had just made reductions in passenger fares that reduced its revenue approximately \$4,400,000 per year.

## \$2 Billion Yearly from Public

The answer further stated that the Civil Aeronautics Board should provide sufficient compensation for carrying the mail to encourage further reductions in passenger fares to promote mass travel by air, to permit the establishment of lower rates for air express and the pioneering and development of the movement of freight by air. In other words, this air line claims that it should receive sufficient mail pay from the government to enable the air line to reduce its passenger fares, express rates, and establish low freight rates so that it can take traffic off the railroads.

It is quite obvious from what I have had to say thus far that the reason we do not now have coordinated transportation in this country, within the real meaning of that term, is because the different forms of transportation are not receiving equal treatment from the government.

The different forms of transportation are not performing the service for which they are best fitted because much of the water, highway, and air transportation now being operated is only possible when the waterways, highways, and airways are provided by the government at the expense of the taxpayers. During the past twenty-five years, the fed-

eral, state, and local governments have spent billions upon billions of dollars to build waterways, highways, and airways to compete with the railroads. This tremendous investment pays no taxes and contributes nothing for the support of government; rather, it is costing the taxpayers an average of \$2,000,000,000 per year to maintain and operate these transportation facilities.

In comparison, the American railroads are spending an average of \$1,325,000,000 each year to own and maintain their own roadways, including the taxes on the roadways that average \$340,000,000 per year. Just so long as these conditions exist, it will never be possible for the different forms of transportation to function together efficiently to provide coordinated transportation.

## Little Traffic Created

The people of this country might well ask themselves—what has been accomplished by the tremendous expenditures that have been made during the past 25 years to promote water, air, and commercial highway transportation to compete with the railroads. Very little new traffic has been created. The other forms of transportation have only taken freight and passenger traffic that formerly moved by railroad, most of which can be handled more economically by the railroads when all costs are included.

If there was ever any question in anyone's mind, experience during the present war has proved conclusively that this country cannot exist without the railroads. Without the railroads to carry the raw materials to our industries, the coal from the mines, the ore to the mills, and the steel and lumber to our factories, there would be no motor vehicles, there would be no steamships, there would be no airplanes—the cost would be prohibitive.

This country cannot get along without the railroads, but the government can continue to maintain and even expand water, highway, and air transportation through the expenditure of the taxpayers' money, so that it will be difficult, if not impossible, for the railroads to function as a private enterprise. It must be obvious to everyone that the railroads cannot continue to be self-sustaining and pay their own way if the other forms of transportation are to be supported largely by the taxpayers.

All forms of transportation must be required to be self-sustaining and pay their way. Likewise, all forms of transportation must be regulated in the same manner and to the same extent by the same regulatory authority. Then and only then will it be possible for us to have the kind of coordinated transportation we have been talking about where each form of transportation will provide the service for which it is best fitted; where all wasteful duplication of facilities and all wasteful competition will be eliminated; and where the different forms of transportation will function together efficiently as integral parts of a complete system of transport.

## NEW BOOK . . .

*A. S. T. M. Standards, 1944. Three Volumes. Part I, Metals; Part II, Non-metallic Constructional Materials; and Part III, Non-metallic Materials—General. Published by the American Society for Testing Materials, 260 South Broad Street, Philadelphia 2, Pa. 6,030 pages, 6½ in. by 9 in. Bound in Cloth. Price \$30 or \$10 per Volume.*

The 1944 Book of A. S. T. M. Standards gives in the latest approved form 1,235 specifications, tests, definitions, etc., including tentative and emergency standards and alternate provisions, issued under emergency procedure in the interest of expediting procurement or the conservation of materials.

Part I, Metals, covers ferrous and non-ferrous metals (except methods of chemical analysis) and general testing methods. The methods of chemical analysis of metals appear in a separate publication bearing that title. Part II, Non-metallic Materials—Constructional, covers cementitious materials, concrete and aggregates, masonry building units, ceramics, pipe and tile, thermal insulating materials, wood and wood preservatives, paint, waterproofing and roofing materials and soils. Part III, Non-metallic Materials—General, embraces fuels and petroleum products, electrical insulating materials, rubber, textiles, soaps, detergents, plastics and water.

## New Haven Tests Radio

(Continued from page 707)

that the loudspeakers make an entirely satisfactory means of communication.

The antennae used on the portable units were developed on the location and are of special interest since they had to be mounted within narrow clearance limits, and had also to be protected against possible contact with the 11,000-volt overhead trolley in electrified territory. The type selected for both locomotive and caboose and shown in one of the illustrations, is a dipole antenna consisting of two members, each one-half wave length long. Connection from the set to the antenna is made through coaxial cable with inductive coupling between the end of the coaxial cable and the two adjacent ends of the antenna halves. The center or nodal point of each half antenna is grounded. This grounding has no effect on the efficiency of antenna radiation but affords complete protection from contact with the overhead wire, since there is no physical connection between the antenna and the set. The fixed antenna on the station at New Haven is mounted about 100 feet above the ground and consists of two horizontal rings 56 in. in diameter grounded at one side and open at the other. Radiation from all three antennae is a maximum horizontally and is practically equal in all directions.

This is the third experiment the New Haven has made with radio train communication; the first having been made in 1934 and the second in 1944.



# Railroads-in-War News

## I.C.C. Would Abolish Truck-Forwarder Rate

Opposes bill to carry joint arrangements beyond May 16 deadline

The Interstate Commerce Commission has submitted to Chairman Wheeler of the Senate committee on interstate commerce a report in opposition to enactment of S. 797, the bill introduced by Mr. Wheeler to provide for continuance beyond the present May 16 deadline of joint-rate arrangements between forwarders and motor carriers. Chairman Lea of the committee on interstate and foreign commerce has introduced a like bill (H.R. 2764) in the House, as noted in the *Railway Age* of March 31, page 604.

The I.C.C. was divided on the matter, the majority report representing the view of Commissioners Porter, Lee, Miller, Alldredge, and Barnard. Commissioner Patterson joined in opposing enactment of S. 797 but he did not go along with another majority recommendation suggesting an amendment to section 408 which provides for publication by carriers of assembling and distribution rates to be used by forwarders in substitution for the joint-rate arrangements. Chairman Rogers and Commissioners Mahaffie and Splawn filed a statement supporting enactment of S. 797 with certain changes. Commissioners Aitchison and Johnson did not participate in the matter.

**May 16 Deadline**—The present section 409 fixes the May 16 time limit on the period allowed forwarders to change over from the joint-rate arrangements to the use of assembling and distribution rates published by the carriers. S. 797 is a proposed amendment to section 409. It would set no new deadline, but would permit present arrangements to remain in effect until the I. C. C. determined as a matter of permanent policy the terms and conditions under which forwarders might utilize the services and instrumentalities of motor carriers. Under the bill's terms the commission could sanction permanent joint-rate arrangements, or find that the situation will be adequately met by the assembling and distribution rates.

The majority I. C. C. report notes how the commission condemned forwarder-motor carrier joint rates in the Acme Fast Freight case in 1938. It also recalled that in its March, 1941, report on the forwarder regulation bill it stated that joint rates between shippers and carriers are "anomalous." As the commission phrased it, the forwarders and truckers were first put on notice that joint rates were "unlawful"

and should be cancelled seven years ago.

The report goes on to say that S. 797's provisions for "agreements" between forwarders and motor carriers "would perpetuate evils inherent in the present forwarder rate structure." It added that "generally speaking, the larger and more influential forwarders have been able to prevail upon the motor carriers to accord them relatively lower divisions of their joint rates than have the smaller forwarders. The latter frequently have to pay the regularly published rates." Nor does the commission think the powers which the bill would give it to supervise such agreements would be effective in eliminating "favoritism."

**Express Not Analogous**—The "appropriate approach" to the problem, it asserted, "is not by the authorization of agreements, but by the filing in the regular manner of rates and charges to be paid for the transportation performed." The commission rejected contentions that forwarders should have arrangements with carriers like those accorded the Railway Express Agency. "There is a vast distinction," it said between forwarder and R. E. A. relations to the underlying carriers. It noted that R. E. A. has an identical contract with each railroad, and that its profits, "if any," accrue to the railroads.

Other comment on the differences between the R. E. A. and forwarders led the commission to observe that "the considerations which led to the adoption of laws prohibiting unjust discrimination and undue prejudice and preference as between large and influential shippers on the one hand, and the smaller shippers on the other, are practically absent in express service, but are highly prominent in forwarder service. Section 409 as it would be under the bill, and as it is now, would unduly prefer motor carriers against carriers subject to Parts I and III of the act. It would permit motor carriers, but not railroads or water carriers, to accord special rates or charges to forwarders. In the post-war period of intensified competition this could be expected to result in diverting large volumes of traffic from the railroads and probably from the water carriers to motor carriers fortunate enough to be able to make special arrangement with forwarders."

Then came the commission's suggested amendment to section 408. It had previously made the same recommendation which is that the section be amended to limit the application of assembling and distribution rates to traffic of forwarders. As now written, such rates must be made available to other shippers in a position to use the services of truckers "under like conditions." This has made truckers reluctant to publish assembling and distribution rates.

## Reed Blames RRs in Grain Car Shortage

But Col. Johnson defends them, and O.D.T.; sees situation improving steadily

Efforts of Senator Reed, Republican of Kansas, to fix on the Association of American Railroads, the Office of Defense Transportation, and the Interstate Commerce Commission the responsibility for a shortage of box cars on western roads which he said had created the "most deplorable situation ever seen in the grain belt" were sharply challenged this week by O. D. T. Director J. Monroe Johnson.

Spokesmen for state authorities, shippers, elevator operators and millers of several important grain producing states west of the Mississippi were afforded an opportunity to appear at an investigation of the grain car situation which was begun April 17 by the Senate committee on interstate commerce, the chairman of which, Senator Wheeler, Democrat of Montana, had ordered the hearing, as noted in *Railway Age* last week, after numerous protests from these states had led their senators, and particularly Senator Reed, to undertake to secure some alleviation of the box car shortage in that territory.

**Reed Is Critical**—It was during these hearings, in which Senator Reed, a member of the committee, had assumed the role, according to Colonel Johnson, of both prosecutor and witness, that the O. D. T. director asked for—and was granted—the privilege of questioning witnesses appearing for the grain states. He did this, he said, because it was not fair to the railroads, and the government agencies concerned with transportation, to allow them to go undefended from Senator Reed's indictment and the allegations put into the record by the senator in questioning the witnesses and "testifying" himself. Countering the senator's assurance that the railroads and the federal agencies would be given an opportunity to state their views to the committee, Colonel Johnson took the position that the time to do this was while the western states' representatives were present, not after they had presented their testimony and returned to their homes.

With Senator Wheeler presiding and more than a dozen senators, not all of them members of the committee, in attendance at times, the morning and afternoon sessions of the first day of the hearings were devoted to the testimony of witnesses from North Dakota, South Dakota, Minnesota, Nebraska and Iowa. The burden of their statements was that the roads serving these states had on their own rails substantially

fewer box cars than they owned; that large numbers of country elevators were blocked and unable to get sufficient cars to clear up that condition and make room for grain from the farms; that an unusually large portion of the 1944 grain crop was still on the farms, from which it should be moved before the 1945 crop is harvested; and that large quantities of the 1944 corn crop, still on the ground for lack of storage space, either had spoiled or had so deteriorated because of excessive moisture that its value was questionable.

**Corn Crop Deteriorating**—Conditions in these states were currently improving little, if at all, most of these witnesses said. Elevator operators and farmers were faced with heavy losses, they pointed out, because of the slow movement of last year's crop. Loss of 100 to 150 million bushels of corn by the end of April was expected, and this was said to be due largely to an insufficient supply of box cars. Instances were cited of country elevators that had not received one car to be loaded since January 1. The terminal markets were said to be in a position to take all the small grain that could be delivered, and it was asserted that corn prices were "pressing the ceiling" at every major terminal market.

The first witnesses were not specifically critical of the railroads, and several of them commended the roads in their territories for the efforts they had been making to handle the grain in the face of war conditions. However, they continued, they

had been promised more cars and had not received them; they had been told that action would be taken in Washington to get more box cars into the western states, but the results had not been impressive. Ben C. Larkin, a member of the Public Service Commission of North Dakota, declared that he "can't go home and lie to my people any more."

In commenting to the committee on this testimony, Senator Langer, Republican of North Dakota, remarked that he had no complaint against the O. D. T., as that office had given him splendid cooperation in efforts to overcome the transportation difficulties faced in his state. Whereupon Senator Wheeler wanted to know, since Colonel Johnson had done all he could, what the committee could do about the lack of cars. The O. D. T. and other federal agencies have the power to act, he pointed out, and the testimony is that they are doing their best. "What can I do?" he demanded. Senator Langer replied that the committee should "get behind" the I. C. C. and O. D. T. and "make" them relieve the car situation in the West. Senator Reed argued that these agencies and the Association of American Railroads had not done all they can do. He would not "concede that the box car situation had been properly handled."

**N. E. Roads Pilloried**—Repeatedly the senator from Kansas developed the point that in March and April certain eastern roads—the Boston & Maine and New York, New Haven & Hartford were singled out

as conspicuous examples—had on their lines many more box cars than they owned—up to 300 per cent more—while the western grain roads had on their lines only 50 to 60 per cent of their box car ownership. He asked W. C. Kendall, chairman of the A. A. R. Car Service Division, to obtain for the committee as quickly as possible, from the two New England roads named, a record of the disposition of all box cars of foreign ownership received by them for one week. No railroad, he said, can keep grain moving when it can hold on its lines only 60 per cent of its box car ownership.

In this connection Senator Johnston, Democrat of South Carolina, interposed the suggestion that the demand for box cars for the movement of essential war materials had contributed to the concentration of cars in the area near the Atlantic ports and the dearth in the western agricultural states. Colonel Johnson remarked that the export movement of government freight takes "tremendously" more box cars than it did even a year ago, and added that in one month (March) the railroads had moved more freight to the ports than they did in the whole duration of World War I. At the same time, he continued, the railroads have 600,000 fewer cars than they had in 1918, and they have been able to get, during the present war, 187,000 fewer cars than the O. D. T. requested materials for.

Senator Wheeler interjected the comment that the ocean shipping interests must have

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Photo by U. S. Army Signal Corps

#### High-Ranking Officers and Members, Army Transport Association

Photographed at the first get-together luncheon of civilian and military members of the group's New York chapter, at Hotel Pennsylvania, April 4, were (left to right): Lt. Col. Thomas F. Sheehan, Deputy Service Command Transportation Officer, 2nd Service Command; Frank N. Bowers, president, International Freightage Corp.; Col. Harold F. Wright, commanding officer, Army War Ship Repair Contract Agency; Office Chief Transportation; Lt. O'Donnell, aide to General Groninger; Lt. Col. R. W. Sayre, executive officer, 2nd Transportation Zone; Albert C. Fetzer, vice-president, Mack International Motor Truck Corp.; Irving Jakobson, president, Jakobson Shipyard, Inc.; Maj. Gen. Charles P. Gross, chief of transportation, and principal speaker at the mid-day gathering; R. E. Dougherty, vice-president, New York Central; Maj. Gen. Homer M. Groninger, commanding general, New York Port of Embarkation; Col. E. C. R. Lasher, commanding officer, 2nd Transportation Zone; Martin J. Alger, vice-president, New York Central; Col. Omar J. Ruch, chief, Supply division, 2nd Transportation Zone; Col. Bernard Lentz, commanding officer, Fort Slocum, N. Y.; Col. W. C. Otten, commanding officer, New York Port Agency; and J. Breen, New York Central.



more influence than the railroads, since they had been able to get substantially all the materials they asked for, while the roads had not. Nevertheless, he went on, part of the blame for the present condition in the West should be put on the railroads, since they had held box cars in the East where they could be used intensively with less empty movement than in the western grain territory.

**"Chaos" Found by Bee**—Spokesmen for Oklahoma and Kansas were heard on April 18. It was in the course of the testimony of C. B. Bee, special counsel for the Oklahoma Corporation Commission, that Colonel Johnson made the charge that no indictment of the A. A. R., O. D. T., or I. C. C. had been made, except by Senator Reed. In turn the senator asserted his right and intention to defend the people of his territory from "insults," and deplored the "unfortunate temperament" of the O. D. T. director. The latter, however, proceeded to question the witnesses to bring out points which he thought should be weighed against the facts and opinions they expressed.

The car situation, Mr. Bee declared, is the "most chaotic" he has experienced in 37 years. He conceded that the railroads had gone to considerable effort and expense to fit gondolas and stock cars to move grain, but he argued that the eastern roads were holding more than their fair share of box cars, and he insisted that they should be required to send cars of western ownership to their home roads. He conceded that they should not be moved empty, if loads were available, but proposed that they be loaded only for movement toward western destinations.

Mr. Bee declared that the I. C. C. should issue a service order requiring the eastern roads to deliver to the western roads a specified number of cars, a set percentage of which should be suitable for grain. At this Colonel Johnson stated that he had had on his desk "since February" the draft of a service order requiring eastern roads to send cars west. It had not been issued, he said, because service orders are "inflexible" in operation. The box car supply in the West is improving, he continued, and current C. S. D. directions require the diversion of 1,990 cars a day from the East. If the cars don't move west, he assured the committee, the service order will be issued, even "if it is inflexible."

**Carriers Defended**—We have "just so much railroad," the O. D. T. director exclaimed. The distribution of equipment is the best they can do. The Southwest, a few years ago a "dustbowl," has had 3 years of unprecedented crops and another is coming along. It would be a "miracle" if all the grain produced in those exceptional crops did move currently. The producers in that area will have to learn to store more grain, he declared. Almost no grain is now moving to Atlantic or Pacific coast ports from the western grain states, Colonel Johnson pointed out; instead it is going to the Gulf ports, so the grain cars which the western roads have will stay in that territory. The O. D. T. and the railroads have not been indifferent to conditions in the West, and the person who complains that they have doesn't know the facts, in his opinion.

The hearing was scheduled to continue for several days as this issue went to press, and witnesses for the government agencies and the railroads were to be heard from as the committee's investigation continued.

### Servicemen Receive Tips on Train Travel

A 32-page pamphlet, entertainingly illustrated by Gluyas Williams, is now being furnished to adjutant general depots for distribution to all servicemen in this country with the thought that its "Tips on Train Travel" will make war-time journeys easier and pleasanter for all concerned.

Published by the Association of American Railroads, the booklet takes into account the large numbers of servicemen who, prior to their first furlough or possible discharge from service, have never traveled except in mass military movement, with all arrangements there provided. Tip No. 1—"Importance of Advance Ar-



rangements"—emphasizes advisability of getting information from qualified persons. (Note illustration).

Other advice concerns reservations, purchase of tickets, information about passenger train equipment and services, the stowing of gear, and caution in the matter of leaving the train for a stroll at stops along the line.

### Railway Supply Men Lauded by Chicago Ordnance Chief

A tribute was paid to war-time production efforts of the manufacturers of railway equipment and supplies in the Chicago Ordnance District—whose "Industry-Ordnance Team," during the month of February, 1945, produced 20 per cent of all the ordnance materiel manufactured in the United States, 14 per cent of all artillery and whose active contracts now total \$3,474,000,000—by Col. John Slezak, district chief, Chicago Ordnance District, Army Service Forces, in an address before an audience of more than 800 at the annual Purchases and Stores Night of the Western Railway Club, at the Hotel Sherman, Chicago, on April 16.

After referring to the outstanding transportation record established by the American railroads, Col. Slezak said:

"The Chicago Ordnance District also owes a debt of gratitude to the railway equipment manufacturers in this area. Their response to the nation's needs was most inspiring. They gave their men, and their physical resources were available to serve

the nation in its tragic hour of need. They tackled jobs which normally they would not have dared to touch, but they wanted to make their contribution to the war effort.

"It would take too long to enumerate the invaluable services many of your members have performed for the Chicago Ordnance District, but I want to single out one of your men whose loyal and constant devotion to national preparedness made the success of the Chicago Ordnance District possible. I am speaking of Fred Preston. To him, and to the men who made his services to the War Department possible, the nation owes a deep debt of gratitude.

"Companies like the Pullman-Standard, Pressed Steel Car, American Steel Foundries, General American Transportation, and I could name many, many others, have been among the leading Ordnance contractors since the national defense days, well before Pearl Harbor. They were early to perceive the gravity of the international situation and early to deliver the fighting equipment necessary to our national existence. Both in dollar volume and in quality, their production has earned them a top-rank position among our contractors."

### 38,500,000 Troops Carried by Rail Up to End of February

Approximately 38,500,000 troops were carried by rail in organized movements from Pearl Harbor to the end of February, 1945, according to the Association of American Railroads.

This number does not include the "millions" of others traveling under orders in smaller groups or the members of Allied armies and navies traveling in the United States. Neither does it include the "thousands" of prisoners of war nor the "millions" of soldiers, sailors and members of the women's service units traveling on furlough or week-end passes.

During the period America was in the last war, the A. A. R. pointed out, the railroads of this country transported 8,715,000 troops in special trains or in special cars attached to regular trains.

In handling organized troop movements from December 7, 1941, through February 28, 1945, approximately 91,000 special trains were operated, and an even greater number of special cars were attached to regular trains. These movements involved 246,194 coach trips, 430,685 sleeping car trips, 120,046 baggage and kitchen car trips, and 172,539 refrigerator, box, flat and gondola car trips.

### Quartermaster Depots Release Cars Promptly

Prompt loading and unloading of freight have enabled Quartermaster Depots and Army Service Forces Depots, administered by the Quartermaster Corps, to close their February operations with demurrage payments averaging less than two cents per car for the 59,785 carloads of shipments handled, said a recent War Department statement.

Quartermaster Depots reported 85 per cent of cars released within 24 hours, 12 per cent within 24 to 48 hours and only 3 per cent held beyond the 48-hour free time limit. These figures cover 17,434



carloads of freight upon which total demurrage payments were only \$47 for the month. Army Service Forces Depots reported 67 per cent of February cars released with 24 hours, 25 per cent within 24 to 48 hours and 8 per cent detained more than 48 hours. These depots handled 42,352 carloads of freight during February with demurrage payments totalling \$836.

"All depots under Quartermaster Corps supervision have cooperated with carriers and government transportation agencies in effecting prompt release of cars so as to provide maximum utilization of all equipment under the stress of wartime traffic," the statement said. "Each depot submits a daily car situation report by teletype to the office of the Quartermaster General in Washington. These reports are analyzed and steps taken to correct situations causing undue detention of cars."

### March Export Traffic

Export freight handled through United States ports in March was the greatest for any month on record, according to the Association of American Railroads. It amounted to 200,385 cars, excluding coal and grain, exceeding not only any previous month since the present war began but also any month in World War I.

The previous record was established in January when the number of cars loaded with export freight, excluding coal and grain, totaled 179,030.

The March figure was up 29 per cent above February, when 155,084 cars were handled.

Export grain unloaded at the ports in March totaled 7,153 cars compared with 3,041 in March, 1944, or an increase of 135 per cent. Railroads handled 574 carloads of coastal freight in March, compared with 1,480 in the same month last year, or a decrease of 61 per cent. The average number of cars of export and coastal freight, excluding coal, unloaded daily at the various ports was 6,713 compared with 6,067 cars in February this year.

### Genius Contest Nets Expense-Free Trips to M. R. S. Men

Three Army railroaders at Camp Atterbury, Teheran, will receive expense-free trips to Alexandria, Egypt, Tel Aviv, Palestine, or Isfahan, Iran, as soon as the Red Cross-sponsored "G.I. Genius Contest" has been completed throughout the eight points of the Persian Gulf Command, the 3rd M. R. S. paper "Red Ball" announced in its issue of April 1.

"Definitely not a hobby contest," the three winners at Camp Atterbury were chosen because of the practical application of their ideas to P. G. C. railroading. First prize went to T/5 John A. Baker of Company B, 754th Railway Shop Battalion, for a spring press, made of scrap iron materials, and called an "ingenious device" which will simplify the assembling of locomotive springs. The second winner was S/Sgt. Bill Leppert, of Company C, 730th, and assistant road foreman of engines between Teheran and Qum, for a sanding device for Iranian State Railway locomotives. It is said this entry, also of scrap materials, will provide the proper amount of sand to

the rail under moving engines. A slide valve repair tool, to aid in repair work on triple valves, won third award for T/5 Merle E. Sharp, of "C" Company, 754th, and a member of the Teheran car shops.

About two dozen items were exhibited, according to "Red Ball," and because there had been no limit on weight or size of entries, several had to be visited at the scene of their construction because they were too large to be moved.

### "XYZ Highway" Operates from Railheads to German Front

Four American armies are being supported in their penetration deeper into Germany by the "XYZ Highway," an express highway system running from railheads to forward areas, and said by the War Department to be "so efficient and so flexible that about 9,000 tons of urgently needed supplies, plus several thousand tons of bulk petroleum products, are reaching the front every day."

The new system, devised by the Army Transportation Corps, in cooperation with Communication Zone sections and the Armies, is like the famed but now closed Red Ball Highway (from Normandy to Paris) and the ABC system (Antwerp to Germany), but because of the rapidly advancing Allied spearheads, more supplies are being hauled over XYZ than by either of the former systems.

Trucks, using 5 or 6-ton truck-tractors hauling trailers with a 10-ton capacity, operate on a 24-hr. a day schedule, with two drivers assigned to each.

### I. C. C. Service Orders

Because of flood conditions in Oklahoma, Missouri and Kansas interfering with rail operations, roads in those states with tracks affected by high water have been directed by Interstate Commerce Commission Service Order No. 302 to reroute by the most available route freight destined to, originating in, or passing through flooded areas of those states, without regard to shippers' routing or ownership of cars. Such rerouting is considered to be a result of carrier disability, and the usual rate arrangements apply. The order was effective April 16 and expires April 23, unless otherwise ordered.

Since April 2 railroads affected by floods in Arkansas, Louisiana and Texas have operated under a similar direction effected by Service Order No. 299. The expiration date of that order has been extended to April 30 by Amendment No. 2 thereto.

Service Order No. 300, effective April 13 through May 15, prohibited initial icing or reicing of refrigerator cars loaded with potatoes originating in Maine at any point east of the Mississippi river or north of the southern boundary of Tennessee and North Carolina, except under Bureau of Service permit.

The use of freight cars for the movement of bauxite ore or its concentrates from the New York harbor area to Port Alfred, Que., or Arvida has been prohibited by Service Order No. 301, effective for one year from April 15, unless otherwise ordered. The order indicated that diversion of this traffic to other ports involving

shorter hauls would somewhat alleviate the existing short car supply.

Restrictions on the reicing of refrigerator cars loaded in Florida with citrus fruit have been further modified by second amended General Permit No. 3 under that order, effective April 16 through June 30. It provides that cars initially iced in Florida may be reiced in transit to bunker capacity at Florence, S. C., Aberdeen, N. C., Hamlet and Spencer, Erwin, Tenn., Atlanta, Ga., Pensacola, Fla., Montgomery, Ala., and Birmingham, and thereafter at all regular icing stations en route. In addition, shipments ordered initially iced at High Springs, Fla., may be initially iced optionally at Waycross, Ga.

### W. P. B. Reports Paper Industry Car Shortage

The pulp, paper and paperboard industries have been asked to cooperate on all transportation problems in an effort to relieve the present car shortage, according to the War Production Board.

Members of the industry advisory committee were told that, while the most serious of the problems was a freight-car shortage of 18,000 to 20,000 a day, the lack of suitable trucks and tires also was hindering receipt of supplies and delivery of paper products by many paper mills. Facilities for shipments by water on the St. Lawrence river and the Great Lakes were said to be adequate for the delivery of pulpwood from Canada.

Carloading figures have dropped below those of last year, and some decline in average carloads was reported. The average weight per car has shown a steady decline the past year. The industry was urged to see to it that all cars used were loaded to capacity to fill government orders, which some members had previously believed did not call for full car shipments.

### Equipment on Order

Class I railroads on April 1 had 36,272 new freight cars on order, according to the Association of American Railroads. On the same date last year they had 36,727 on order. The April 1, 1945, figure included 6,357 hopper, 5,452 gondolas, 1,335 flat, 18,768 plain box, 1,800 automobile, 2,499 refrigerator, and 61 stock freight cars.

They also had 564 locomotives on order on April 1, compared with 755 on the same day in 1944. The former figure included 138 steam, two electric, and 424 diesel-electric locomotives compared with 243 steam, two electric and 510 diesel-electric one year ago.

Class I roads put 12,993 freight cars in service in the first three months this year compared with 7,838 in the same period last year. Those installed in the first quarter this year included 4,058 hopper, 1,934 gondola, 63 flat, 178 stock, 191 refrigerator, 477 automobile box, 6,092 plain box freight cars.

They also put 136 new locomotives in service in the first three months of which 19 were steam, and 117 were diesel-electric. New locomotives installed in the same period last year totaled 261, which included 112 steam, one electric and 148 diesel-electric.

# GENERAL NEWS

## New President Knows Transport Situation

Served 10 years as member of  
Senate's committee on  
interstate commerce

Harry S. Truman, who succeeded to the Presidency last week on the death of Franklin D. Roosevelt, brings to that office considerable familiarity with the nation's transportation system and its problems, acquired through his ten years of membership on the Senate's committee on interstate commerce and his recent service as chairman of the Senate's Special Committee to Investigate the National Defense Program, which became known as the Truman committee. Mr. Truman was an active member of the interstate commerce committee, especially in connection with its 1935-1938 investigations of railroad finances; and he was co-sponsor with Committee Chairman Wheeler of the Senate version of the bill which finally became the Transportation Act of 1940 with its provisions for Interstate Commerce Commission regulation of water carriers.

Among the Truman committee reports was the comprehensive review of wartime transportation conditions which was abstracted in the *Railway Age* of December 18, 1943, page 981. It found that the "importance of transportation as a war agency" had not been adequately recognized, and continued to assert that the war-time experience had indicated "the importance of maintaining a sound and healthy railroad system as an instrument of national defense."

**Attacked "Holding Companies"**—President Truman was first elected to the Senate in 1934, and upon taking office in 1935 he immediately got the interstate commerce post among his committee assignments. During the committee's investigation of railroad finances he often substituted for Chairman Wheeler in presiding over the public hearings. In that period he made, from time to time, speeches that were critical of certain railroad financial practices and activities of investment bankers which the committee's investigations had brought to light.

Among such pronouncements was a 1937 statement of his belief that "railroad holding companies are an evil to the railroads and the public and must be abolished." In a 1937 Senate speech, Mr. Truman assailed investment bankers whom he charged with "looting" some of the railroads, and he briefed his Senate colleagues on the investigation so they could see "what 'pikers' Jesse James and his crowd were alongside some real artists." In other Senate

speeches of this period Mr. Truman was critical of railroad reorganization procedures, and he was sponsor with Senator Wheeler of a bill to revamp such procedures and create a special railroad reorganization court.

In 1938 Mr. Truman was a member of the so-called White House Conference on the railroad problem which was assembled by President Roosevelt, the other two Congressional members being the chairmen of the interstate commerce committees—Senator Wheeler and Representative Lea. Out of the meetings of this conference came the report of the so-called Committee-of-Three, consisting of Interstate Commerce Commissioners Splawn and Mahaffie and the late Commissioner Eastman.

**Rapped "Banker Control"**—Later in 1938 Mr. Truman appeared at emergency board hearings to oppose the 15 per cent wage cut then being proposed by the railroads. There he said that railroad financial troubles had come about "through banker management," and further asserted that railroad management "is living in 1893 instead of 1938." He added that he knew of an instance wherein a railroad employee had been fired after a display of individual initiative. In response to a question from James M. Landis, a member of the emergency board, Mr. Truman said he thought the I. C. C. had "fallen down on its job" in not having required the railroads to set up sinking funds for debt retirement.

The Wheeler-Truman bill which, as noted above, was the Senate version of the legislation which became the Transportation Act of 1940 was introduced in 1939 and thereafter Mr. Truman was among its most ardent supporters. He served on the hard-working conference committee which spent months ironing out the differing Senate and House versions. While the bill was pending he charged in a speech before the New York unit of the National Conference of Investors that persons flooding the country with propaganda against the proposed legislation were those "who are profiting by government expenditures on waterways without one cent of expense to themselves." He thought it ironical that the same interests who were thus opposing equal regulation of all carriers were found also in opposition to giving the railroads any relief by way of repeal of the long-and-short-haul clause.

**Overrode F. D. R.'s Veto**—Among other transport legislation sponsored by Mr. Truman was the so-called bridge bill enacted in 1940 to give the railroads relief with respect to the cost of rebuilding bridges required to be altered in connection with waterway projects. This measure was passed over President Roosevelt's veto, and Mr. Truman was a leader of the overriding drive in the Senate.

(Continued on page 733)

## Urges St. Lawrence Project Be Junked

New York business body sees  
no benefits and much  
harm in scheme

The Commerce and Industry Association of New York, in a report on the proposed St. Lawrence Seaway, urges that this project be permanently discarded as based upon an "economic fallacy."

Prepared by G. E. Mace, manager of the transportation bureau of the Association, the report takes the form of a brief and declares that "the St. Lawrence Seaway project has been before the public for more years than the business life of the ordinary man." The Association itself has taken action on the project 18 times in the past 25 years. The last time was in October, 1941, when the project was opposed from its power aspects. It was then contended that it would take five years to construct the power development and that "Hitler would not wait."

"The fact that now, as the European phase of the war is drawing to a successful conclusion, without this huge expenditure for electrical energy, is ample proof of the wisdom of the opposition the Association put up at that time," according to Mr. Mace.

Among major factors to be weighed in consideration of the project, the Association asks these questions: (1) What will it cost? (2) What will be the benefits? (3) Will the benefits compensate for the cost?

"No authoritative or accurate information is available as to what the actual cost of the project, when completed, would be. Such estimates as have been made are all open to criticism as to their accuracy. They were all made prior to the present war, and there is no knowledge of the extent to which economic conditions which will exist during the post-war period will disturb cost estimates made during the pre-war period. For that reason, alone, all estimates previously made of the cost of the construction and maintenance of the project are valueless as of the post-war period.

"These estimates, made by different authorities at different times, certainly cannot now be accepted as the cost which the construction and maintenance of the seaway would incur during the post-war period.

They are so at variance with each other, it is obvious that none of them are accurate. No estimation of the cost of construction has been made by any contracting company figuring on blueprints and speci-

(Continued on page 732)



## Social Insurance Bill Hearings Resumed

### D.B. Robertson opens R. L. E. A. rebuttal to presentations of the opposition

House interstate and foreign commerce committee hearings on H.R. 1362, the Crosser bill embodying the Railway Labor Executives Association's program for liberalizing the Railroad Retirement and Railroad Unemployment Insurance acts, were resumed on April 18 when R. L. E. A. opened its rebuttal to railroad and other opposition presentations made at the previous sessions. These earlier sessions, which also included R. L. E. A.'s main presentation in support of the bill, were reported in the *Railway Age* issues from February 3 to March 24, inclusive.

**Robertson Defends His Authority**—The first rebuttal witness was D. B. Robertson, president of the Brotherhood of Locomotive Firemen & Enginemen, who again identified himself as chairman of an R. L. E. A. committee "charged with the duty of studying the operation" of the retirement and unemployment acts. Mr. Robertson's authority in the latter connection had been challenged by John T. Corbett, assistant grand chief engineer and national legislative representative of the Brotherhood of Locomotive Engineers, who stated that no such committee had been appointed at a May 13, 1940, meeting of R. L. E. A., as claimed by Mr. Robertson.

Mr. Robertson addressed himself first to this challenge, saying that the minutes of that meeting "corroborate my previous testimony." He added that "in substance" the minutes disclose the appointment of a committee with himself as chairman "to handle a proposed amendment relating to remuneration for time lost"; but "additional research reveals that formal consideration of specific railroad retirement and railroad unemployment insurance problems dates back to September 21, 1939," when a committee comprised of the same personnel was appointed "to investigate and review several other specific problems relating to this legislation."

Mr. Robertson did not deal specifically with the assistance R. L. E. A. received on the bill from Murray W. Latimer, chairman of the Railroad Retirement Board. He referred to R. L. E. A.'s "recourse to the Railroad Retirement Board for information and advice," and he defended such consultation as "wholly natural." In this connection Mr. Robertson had what he appraised as an "excellent precedent" in the late President Roosevelt's 1936 suggestion that labor and management take advantage of R. R. B. technical facilities in working out the agreement which led to enactment of the present retirement act.

**Opposes Collective Bargaining**—Recommending on the presentations of Mr. Corbett of the B. of L. E. and Martin H. Miller, national legislative representative of the Brotherhood of Railroad Trainmen, Mr. Robertson noted how that latter had said that of the B. of R. T. was "on the

whole, favorably disposed toward the amendments now under consideration." Thus he listed the B. of L. E. as "the only organization representing railroad employees that is opposed to this legislation." Here also he gave figures to defend his previous testimony that R. L. E. A. organizations represent 80 per cent of railroad employees.

The failure of R. L. E. A. to enter collective bargaining conferences with management on the proposed amendments was due to labor's experience with such conferences, Mr. Robertson said. He insisted also that the failure was no breach of the 1937 pension-act agreement; for all labor there agreed to was not to request any change "which should depart from the principle of equal tax burden upon employers and employees."

Mr. Robertson gave an example of labor's experiences in collective bargaining, telling the committee about the so-called Diesel case. He noted that the "unacceptable recommendations of an emergency board" were handed down in May, 1943, and it took 14 months after the intervention of President Roosevelt to get a more favorable settlement applicable in all territories. It has become "almost impossible," Mr. Robertson said, to take any of the "big problems" into collective bargaining conferences and get them settled in less than a year or two. He also complained that railroads send "second or third string personnel men" into collective bargaining conferences, while the labor representatives are usually the unions' chief executives; and they "never see" a railroad president or a general manager.

**Favors Unilateral Action**—Moreover, the B. of L. F. & E. president said, most past legislation affecting railroad employees has been enacted without management-labor agreements. He recalled as exceptions only the present retirement act and the Railway Labor Act of 1926. And "major amendments" were made to the latter in 1934 "without prior approval thereof by the carrier and regardless of the fact that the basic act of 1926 had been a matter of agreement."

To answer contentions that the proposed legislation would further prefer railroad employees as compared with other workers in the matter of social security, Mr. Robertson had a long list of instances wherein Congress had dealt separately with the railroads. Also, he had quotations from public officials who had commented on the vital part the carriers play in the life of the nation. "It should go without saying," Mr. Robertson went on, "that the problems of an industry whose affairs are so engrossed in our economic and social life are at the very minimum worthy of separate and careful examination at the hands of the government."

After further argument and citations of precedents in support of the separate-treatment idea, Mr. Robertson closed with a reading of the letter which the late President Roosevelt wrote on January 22 to Chairman Lea of the committee and Chairman Wheeler of the Senate committee on interstate commerce. As noted in the *Railway Age* of January 27, page 248, that Roosevelt letters endorsed H.R. 1362 and the companion Senate bill—S. 293.

## I. C. C. Reports on Diverse Accidents

### Two in no-block territory, two with automatic signals, in 4-day period

Reports of investigations of four train accidents that occurred within a four-day period have been made public by the Interstate Commerce Commission. Two of the accidents were on lines where "there was no block system in use," and the reports therein, prepared under the supervision of Commissioner Patterson, concluded with the recommendation that the railroad involved "establish an adequate block system on the line on which this accident occurred."

**No "Show Cause" Orders This Time**—The other two accidents were on lines on which trains were operated by automatic block signal indications, and resulted from failure of employees to comply with rules. No recommendations were included in the reports on these accidents. Some reports of investigations of recent accidents where no block system was in use have been accompanied by "show cause" orders under which the railroad involved would be required to install an "adequate block system" in the affected territory, or, as in the case of the Atlantic Coast Line, as reported in *Railway Age* of February 24, page 393, on large portions of the system so operated. No such orders accompanied the latest reports, however.

One of the reports which included a recommendation that a block system should be established dealt with a rear-end collision of a mixed train and a freight on the so-called Okeechobee branch of the Florida East Coast. A few days after this report was made public Division 4 of the commission authorized the abandonment of a 136-mile segment of this branch, including the point of the accident, upon completion of a cut-off connecting the southern end of the branch with the F. E. C. main line at Fort Pierce, Fla.

The F. E. C. collision occurred at 8:35 a. m. on February 16 at Wewahatchee, Fla., on a level, tangent, single-track line where trains were operated by timetable and train orders. The weather was foggy. Two employees were killed and one was injured. Northbound Extra 313, which included 23 freight cars, 2 passenger-train cars and 2 cabooses, had stopped at the station to pick up cars about 5 min. before it was struck by northbound Extra 310, which was moving about 35 m. p. h. The following train was made up of 40 cars and cabooses.

**Was Rear Protected?**—The conductor of the preceding train said he dropped a lighted 10-min. fusee about 3,000 ft. south of the point of the accident. The flagman said he ran back from the train as it was about to stop, placed two torpedoes on the rail at a point about 1,300 ft. south, and was giving stop signals with two lighted fuses at a point 800 ft. further south when the following train passed him.

The engineer and fireman of the following train were killed. The members of the



crew who were in the caboose said the brakes were applied in emergency immediately before the collision. They had received no train order restricting their authority to proceed, and knew of no warning signal prior to the accident. They went forward after their train stopped, and said they saw no member of the crew of the preceding train either to the rear of or beside their train.

The commission's report attributed the collision to "failure to provide adequate protection for the preceding train." In summing up the circumstances, the report said: "If an adequate block system had been in use on this line the crew of the following train would have received definite information that the preceding train was occupying the main track in the same block, and this accident would not have occurred."

**On a Superior Train's Time**—A recommendation that the line involved be equipped with a block system was also included in the report of a rear-end collision at 1:16 a. m. on February 14 within yard limits at a point 0.99 mile north of Pine Bluff Shops, Ark., on the single-track main line of the St. Louis Southwestern. The track was level, with a 2 deg. curve to the right for southbound trains beginning 1,663 ft. north of the point where the accident occurred. Trains were operated by timetable and train orders. An auxiliary track, known as Track No. 1, paralleled the main track on the east in the vicinity. The maximum authorized speed for passenger trains was 60 m. p. h. on tangents and 55 m. p. h. on curves.

About 12:28 a. m. southbound Extra 681, a 77-car freight, had stopped on the main track with its rear end about 1.58 mile south of the yard limit sign north of Pine Bluff Shops. About 48 min. later, as this train was moving south through a crossover to Track No. 1 at a speed of about 5 m. p. h., it was struck in the rear by southbound 7-car passenger train No. 1, the "Lone Star," which was moving about 55 m. p. h. The caboose of the preceding train had moved about 750 ft. south of the point where it had stopped when it was struck by the following train. Two employees were killed and one passenger, two mail clerks and 6 employees were injured.

The commission found that the accident was caused by an inferior train occupying the main track on the time of a following superior train without adequate protection. Extra 681 had waited about 45 min. before a yard track was available on which it could clear the main track. The flagman said he went to the rear of the freight about 3,000 ft. and placed two torpedoes on the rail, then returned to a point about 500 ft. to the rear of his train, where he placed a lighted 10-min. fusee on the track when it started to move southward. He then boarded the caboose, but the swing brakeman said he was displaying a lighted fusee from the rear platform of the caboose until just before the collision occurred.

**Saw No Signals**—As No. 1 approached the preceding train no warning signals were seen or heard, its fireman said, until it was within a short distance, when the engineer (who was killed) moved the brake valve to emergency and called a

warning. On account of track curvature, the fireman could not see ahead until he moved to the right-side of the cab; he then saw a lighted fusee and the marker lamps of the freight immediately before the collision. No train order had been issued restricting the authority of No. 1. The report concluded with the observation that, "if an adequate block system had been in use on this line, the crew of the following passenger train would have received definite information that the preceding train was occupying the main track within the same block, and this accident would have been averted."

A derailment on the single-track main line of the Northern Pacific near Lyons, N. D., at 1:50 p. m. on February 17 was caused, according to the I. C. C. report, by "insecure condition of the track." The accident occurred on a 3 deg. 30 min. curve on level track where the maximum authorized speed for the train involved, Third No. 2 eastbound, was 55 m. p. h. This train was made up of a 4-8-4 type engine, 3 head-end cars, 2 kitchen cars, 3 troop sleepers, and 9 tourist sleepers (but not in that order). While the train was moving about 45 m. p. h. the rear wheels of the trailer truck of the engine, the tender, and the first 16 cars were derailed. The first 3 cars stopped practically upright, while the 4th to 16th cars, inclusive, stopped in various positions north of the track. There were no fatalities, but 99 passengers and 7 employees were injured. The derailed equipment was considerably damaged.

**Track Under Repair**—Operations in this territory were by timetable, train orders and an automatic block signal system. The last signal passed by the train displayed proceed. There was no indication of defective equipment or track. No warning signals were seen or heard. A section foreman with a crew of two men were at work at the point of the accident, having been instructed to correct the gage of the track there.

At lunch time the foreman had received a line-up from which he calculated that

\* \* \*



#### 50 Years a P. R. R. Railroader

George LeBoutillier (left), vice-president of the Pennsylvania at New York, on April 16 received the railroad's 50-year gold button from M. W. Clement, president, in the latter's office in Philadelphia. In charge of the railroad's New York zone, since 1927, Mr. LeBoutillier started out as a rodman in 1895, had advanced to superintendent by 1914, and general superintendent by 1920.

Third No. 2 should reach the curve after 1:36 p. m. About 1:10 p. m. he instructed his crew to pull all spikes holding one outside rail, preliminary to adjusting its position. The angle bars were not taken off, but the rail was raised with a jack and the tie plates were relocated. At that point Third No. 2 was heard about  $\frac{3}{4}$  mile off. There then being insufficient time to flag the train, the crew "hurried to do all they could to make the track safe." The jack was removed and 9 spikes were driven before the train arrived, but "there were not enough spikes to hold the rail in proper alignment."

Commenting on the circumstances, the report said: "The section foreman understood that the rules required flag protection be furnished to prevent trains from entering territory where work was being performed which would render the track unsafe for the passage of trains. However, in this instance, when they began to pull the spikes he thought the rail would be replaced and properly secured before Third No. 2 would arrive. During the progress of this work he overlooked the time. Third No. 2 was derailed 14 min. after the time which he had estimated about an hour earlier as the earliest possible arriving time of that train."

Another accident on February 17, also in automatic block signal territory, was near Hinton, W. Va., on the double-track main line of the Chesapeake & Ohio, in which a standing 80-car eastbound freight, Extra 2721, was struck in the rear by 6-car passenger train No. 16, moving about 40 m. p. h. One employee was killed and three passengers were injured. The caboose and 6 rear cars of the freight and the passenger engine were derailed and damaged.

This collision occurred in rainy weather about 8:35 a. m. The freight had stopped on a 1 deg. 45 min. curve about 1 hr. 22 min. before, in response to a stop signal. Due to an obstruction ahead, the track would not be clear until about 8:30 a. m., the crew was advised. Under rules applying to automatic signal territory on this road, the display of lighted fuses or use of torpedoes was required only if an emergency existed. The flagman had gone to the rear about 1,000 ft., and when he saw the following train approaching at a distance of about 2,250 ft. he gave stop signals with lighted red and white lanterns until its engine had passed him.

**Smoke-Obscured Signal**—The passenger train approached the scene of the accident with throttle in drifting position. Continuously lighted color-light signals were installed in this territory. When No. 16 passed the approach signal (7,224 ft. west of the standing train), which was displayed yellow (reduce speed to medium and prepare to stop at next signal), the engineer was unable to see it because of trailing smoke, and asked if the fireman had seen it. The fireman understood the engineer to say the signal displayed proceed, however, and called that indication in response.

Again due to trailing smoke, neither the engineer or fireman of the passenger saw the indication of the home signal, 477 ft. west of the rear of the freight, though it was displaying stop-and-proceed (at restricted speed). When the distance between

the two trains was about 500 ft., however, the fireman saw the train ahead and called a warning. The brake valve was moved to emergency, but the train could not be stopped within that distance.

The commission's report concluded as follows: "The enginemen (on the following train) were familiar with the location of the signals involved. They understood that, when signals cannot be plainly seen, the speed of the train must be controlled in such manner that they are able to see the indications. The speed of No. 16 was about 40 m. p. h. throughout the territory where the enginemen said they were unable to see the indications displayed by the signals involved. In tests after the accident the signals functioned properly."

## North Western Transports Big Herd of Buffalo

One of the strangest consignments in these war times was transported by the Chicago & North Western recently in the shape of a herd of 175 buffalo cows, bulls and calves, from the Pine Ridge Indian Reservation, Merriman, Neb., to Coldwater, Mich. Although buffalo are known to be one of the most difficult type of animals to handle, the entire consignment arrived at its destination without injury or mishap.

The herd was purchased at Merriman by Ed. Butters of Coldwater, after being rounded up in a blizzard, and will be used in experiments concerning their food value as a possible means of relieving the present meat shortage. The animals were taken to Chicago by the North Western and from there the cars were taken over by the New York Central for the remainder of the journey.

## Shippers and Counties Unite To Save Railroad

Shippers using the Rio Grande Southern, a 174-mile narrow gage (3 ft.) railway operating in five counties of southwestern Colorado have accepted a freight rate increase of \$20 per car in order to continue the line in operation. Co-operating with the shippers in their efforts to keep the road open, the five counties served by the railway have agreed to subordinate tax claims to the repayment of a \$60,000 loan due the Defense Supplies Corporation, a subsidiary of the Reconstruction Finance Corporation. The road, which serves mines and farms in the San Juan mountain region of the state, was granted the R. F. C. loan in 1942 to assist it in handling minerals which were necessary to the prosecution of the war. It last earned its operating expenses and taxes in 1935 and in some years since has failed even to earn operating expenses in spite of greatly improved gross revenues.

## Bill for Reparations Against Truckers and Forwarders

Chairman Wheeler of the Senate committee on interstate commerce has introduced S.864 to amend the Interstate Commerce Act to provide for awards of reparations against motor common carriers and freight forwarders. The bill is designed to bring about uniformity in the matter of reparations by applying like provisions to all transport agencies subject to the act.

The present law provides for awards of reparations against railroads and water carriers. Under the bill the limitation period for the filing of reparations claims against all carriers would become two years, as one provision would reduce to that term the present three-year limitation on claims against water carriers.

## February Accident Statistics

The Interstate Commerce Commission on February 12 made public its Bureau of Transport Economics and Statistics' preliminary summary of steam railway accidents for February and the first two months of 1945, compared with the same 1944 periods. The compilation, which is subject to revision, follows:

Item	Month of February		2 months ended with February	
	1945	1944	1945	1944
Number of train accidents*	1,530	1,336	3,184	2,738
Number of casualties in train, train-service and nontrain accidents:				
Trespassers:				
Killed .....	109	81	204	183
Injured .....	73	72	163	140
Passengers on trains:				
(a) In train accidents*				
Killed .....	1		1	7
Injured .....	393	56	453	238
(b) In train-service accidents				
Killed .....	2	6	8	10
Injured .....	188	213	440	413
Travelers not on trains:				
Killed .....	1		1	1
Injured .....	112	97	248	189
Employees on duty:				
Killed .....	75	97	170	187
Injured .....	3,937	3,666	8,203	7,541
All other nontrain-passengers:**				
Killed .....	184	183	375	390
Injured .....	600	629	1,482	1,415
Total—All classes of persons:				
Killed .....	372	367	759	778
Injured .....	5,303	4,733	10,989	9,936

\* Train accidents (mostly collisions and derailments) are distinguished from train-service accidents by the fact that the former cause damage of more than \$150 to railway property.

\*\* Casualties to "Other nontrain-passengers" happen chiefly at highway grade crossings. Total highway grade-crossing casualties for all classes of persons, including both trespassers and nontrain-passengers, were as follows:

Persons:				
Killed .....	171	160	345	351
Injured .....	350	371	932	892

## 1945 Egleston Medal Awarded To N. Y. C. Officer

The 1945 Egleston Medal for "distinguished engineering achievement," on April 19, was awarded to Richard Erwin Dougherty, vice-president of the New York Central System, at the 74th annual dinner of the Columbia University Engineering Schools Alumni Association, in New York.

Before a notable audience, including Brig. Gen. Donald Armstrong, guest speaker, and Gustav Metzman, N. Y. C. president, and R. D. Starbuck, executive vice-president, Mr. Dougherty, the first railroadman to be thus honored, was cited as an "eminent, resourceful and progressive railroad builder and executive." The citation called attention to his having been responsible for the New York West Side and the Syracuse and Buffalo improvements, as well as his association with terminal constructions at Cleveland and Cincinnati, and numerous new line facilities, including the "Castleton Cut-off."

New York born, and a graduate of Columbia University in 1901, Mr. Dougherty entered N. Y. C. service on the Mohawk division, as rodman, transitman and assistant engineer on construction in south Schenectady and Albany. Advanced to assistant engineer in the general offices in New York in 1904, he was for several years in charge of construction for the eastern district of the N. Y. C., and in 1918 was made designing engineer for Buffalo and the East. Further promotions followed and in 1930 he was elected vice-president of improvements and developments.

The Egleston Medal, founded in 1939 in memory of Professor Thomas Egleston, former Columbia engineering faculty member, is yearly awarded to an alumnus who has distinguished himself in his profession.

## Urges Power to Force Railroads To Unify Facilities

If Chicago wants the proposed transit authority, it will have to avoid the "glaring weakness" which confronts the Port of New York Authority, according to Austin J. Tobin, executive director of the Port of New York Authority, who spoke last week before a meeting of the Union League Club at Chicago. Mr. Tobin said that the port's original assumption that the railroads would cooperate in this unification has, with one exception, produced an unending series of disappointments and suggested that in view of recent similar disappointments in Chicago's terminal negotiations that the Chicago authority be given the power to subpoena witnesses and records and also to conduct investigations.

The one exception referred to by Mr. Tobin is that of Union Terminal No. 1, which was the New York port's first inland railroad terminal and was established in the face of "hindrance of railroads whenever possible," and its operation "has been without benefit of any railroad encouragement."

## A. S. T. M. Meeting Cancelled

The Executive Committee of the American Society for Testing Materials decided at a meeting on April 10, to cancel the regular five-day annual meeting of the society, which had been scheduled for June 18-22 at Buffalo, N. Y. Instead, a business session will be held, probably the last week in June, in New York to permit action on the formal standards to be consummated and to conduct other business. The exhibit of testing apparatus and related equipment, which had been scheduled for the annual meeting has been cancelled also.

## Barber Calls for Consideration of Railroad Problems

"The remarkable accomplishment by the railroads in meeting war emergency demands, an essential factor in the 'miracle of production,' emphasizes the need for understanding consideration of their many present and prospective problems," said Alvin B. Barber, manager of the Transportation and Communication Department, Chamber of Commerce of the United States, in the latest issue of the Chamber's weekly "Business Action" report. Mr. Barber added that the carriers "can count



# SOUTHERN PACIFIC COMPANY

## ANNUAL REPORT TO THE STOCKHOLDERS FOR YEAR ENDED DECEMBER 31, 1944

In the year ended December 31, 1944, the Southern Pacific Transportation System handled the largest volume of traffic in its history. Net ton-miles of freight slightly exceeded those of 1943, establishing a record high for the fifth consecutive year, and were nearly three times those of 1939, the last year before defense production affected rail traffic. Passenger-miles were 10.4% greater than in 1943 and were five times those of 1939.

Gross operating revenues also established a new high record. However, expenses, chiefly wages and materials and supplies, and taxes increased to a greater extent than revenues, with the result that the consolidated net income of the properties, \$41,847,065 for 1944, was \$25,286,122 or 37.7% less than 1943, and \$43,594,329 or 51% less than the peak net income of 1942.

Manpower shortage, more than 9,000 in 1944, continues to be our greatest problem. More than 18,000 of our former employees have joined the armed forces. In spite of this and other difficulties, the steadily increasing traffic volume has been handled without widespread congestion or prolonged delays. This has been made possible by first-rate cooperation from the military and other government agencies, and from commercial shippers; and by effective teamwork with other railroads and within the Southern Pacific organization. The resourcefulness and unremitting effort of our own people have brought increasingly into play the efficiency of improved methods and machines developed over a long period of experimentation and research, especially during the last decade. In virtually every principal index of railroad efficiency new records have been set during the defense and war years, several during the year 1944.

As to basic physical plant, tracks and other facilities have been well maintained and strengthened, terminals have been enlarged and passing tracks extended, these and other factors giving our Transportation System a capacity greater than ever before.

The Company's financial position has been further improved through substantial reduction of debt and through refunding.

So long as the war lasts all our resources in physical facilities and manpower will be directed to the primary task of moving men and material essential to victory.

When peace comes, these resources will again be turned in full measure to furthering development of the area served by our Lines and to meeting the problems the post-war period will bring. With progressive efficiency, utilizing recently developed materials, devices and methods, we intend as a primary move, to improve and extend the new services that public approval and patronage made profitable during the years immediately before the war, such as the modern lightweight "Daylight" and "Sunbeam" coach trains and "Lark" and "City of San Francisco" sleeping-car trains, and the fast overnight merchandise trains from principal jobbing centers, coordinated with pick-up and delivery service by truck.

As to the much discussed prospect of increased post-war competition from other and newer forms of transport, by airway and by highway, it may be noted that in some aspects these other forms of transport are complementary to the railroad and, further, that in the competitive phases the railroad enjoys the basic advantage inherent in mass land transportation as contrasted with single-unit transportation, economy being the chief factor determining the flow of commerce.

However, as a fundamental phase of public policy affecting the competitive situation, there remains the need of equalization of terms of competition among various forms of transport, highway and airway carriers now having government subsidy in facilities provided for them with public funds, part of which are railroad taxes.

Greatest factor in the long-term outlook for the Company lies in the prospect of general prosperity and development of the regions served by Southern Pacific Lines. The war has brought vast industrial development and accompanying influx of population to this territory. While problems of reconversion may be more severe than in other parts of the country, it seems likely that the final general result will be a substantial increase over prewar years in industrial and other activity and consequently in railroad traffic.

**Income**

Southern Pacific Transportation System (Southern Pacific Company and Transportation System Companies, Consolidated) and Separately Operated Solely Controlled Affiliated Companies (Excluding Southern Pacific Railroad Company of Mexico)—Year 1944 Compared with Year 1943.

SOUTHERN PACIFIC TRANSPORTATION SYSTEM:	Year 1944	+Increase -Decrease	Per Cent
Freight revenues	\$446,402,682.98	+ \$18,838,561.70	4.41
Passenger revenues	134,419,263.64	+ 10,172,671.39	8.19
Mail and express revenues	19,550,131.89	+ 2,173,554.38	12.51
All other operating revenues	27,851,438.22	+ 328,689.97	1.17
<b>Total railway operating revenues</b>	<b>\$628,223,516.73</b>	<b>+ \$30,856,097.50</b>	<b>5.17</b>
Maintenance of way and structures	\$84,897,690.59	+ \$8,520,323.43	11.16
Maintenance of equipment	105,710,068.11	+ 15,025,075.85	16.57
Traffic expenses	9,270,208.33	+ 1,036,950.82	12.59
Transportation expenses	190,806,184.90	+ 23,999,508.95	14.39
All other operating expenses	30,247,536.48	+ 3,140,268.73	11.58
<b>Total railway operating expenses</b>	<b>\$420,931,688.41</b>	<b>+ \$51,722,127.78</b>	<b>14.01</b>
<b>Net revenue from railway operations</b>	<b>\$207,291,828.32</b>	<b>- \$20,866,030.28</b>	<b>9.15</b>
Railway tax accruals	130,981,263.22	+ 4,261,913.25	3.36
Equipment and joint facility rents—Net	23,861,176.42	- 334,515.19	1.38
<b>Net railway operating income</b>	<b>\$52,449,388.68</b>	<b>- \$24,793,428.34</b>	<b>32.10</b>
Income from lease of road and equipment, and miscellaneous rent income	\$1,378,137.50	+ \$104,049.61	8.17
Dividend income, excluding all inter-company dividends	3,129,280.00	- 29,449.75	.93
Income from funded securities	585,827.23	+ 122,489.13	26.44
Other income accounts	4,517,319.46	+ 339,248.17	8.12
<b>Total other income</b>	<b>\$9,610,564.19</b>	<b>+ \$536,337.16</b>	<b>5.91</b>
<b>Total income</b>	<b>\$62,059,952.87</b>	<b>- \$24,257,091.18</b>	<b>28.10</b>
Miscellaneous deductions	667,145.80	- 138,964.70	17.24
<b>Income available for fixed charges</b>	<b>\$61,392,807.07</b>	<b>- \$24,118,126.48</b>	<b>28.20</b>
Interest on debt	\$24,530,698.74	- \$2,500,031.05	9.25
Other fixed charges	129,733.42	+ 43,803.40	50.98
<b>Total fixed charges</b>	<b>\$24,660,432.16</b>	<b>- \$2,456,227.65</b>	<b>9.06</b>
<b>Income after fixed charges</b>	<b>\$36,732,374.91</b>	<b>- \$21,661,898.83</b>	<b>37.10</b>
Contingent charges	12,715.25	- 21,737.86	63.09
<b>Net income of Southern Pacific Transportation System</b>	<b>\$36,719,659.66</b>	<b>- \$21,640,160.97</b>	<b>37.08</b>
<b>SEPARATELY OPERATED SOLELY CONTROLLED AFFILIATED COMPANIES:</b>			
Operating in the United States—Net income excluding interest on bonds of separately operated Solely Controlled Affiliated Companies owned by Southern Pacific Company not included in its income	4,968,110.53	- 3,275,121.17	39.73
Operating in the Republic of Mexico (excluding Southern Pacific Railroad Company of Mexico)—Net income	159,294.64	- 370,840.21	69.95
<b>CONSOLIDATED NET INCOME</b>	<b>\$41,847,064.83</b>	<b>- \$25,286,122.35</b>	<b>37.67</b>

### Profit and Loss Account of Southern Pacific Transportation System

(Southern Pacific Company and Transportation System Companies, Consolidated, Excluding Inter-Company Items)

	Year 1944
<b>CREDITS</b>	
Credit balance at beginning of the year	\$447,498,900.44
Net income as reported in the income account	36,719,659.66
Other credits	5,250,877.88
<b>Total</b>	<b>\$489,469,437.98</b>
<b>DEBITS</b>	
Income appropriated for sinking fund reserves	\$48,000.00
Dividend appropriations of surplus	9,431,937.50
Other debits	2,887,419.05
Credit balance at end of the year	477,102,081.43
<b>Total</b>	<b>\$489,469,437.98</b>



## Southern Pacific Transportation System

**Revenues.** Military traffic comprised a larger proportion of the total traffic volume than in 1943. The increase of 5.2% in operating revenues is mainly the result of increased movement of troops, ammunition and military supplies through Pacific ports to the Pacific theater of war; more civilian travel for business purposes and travel by members of the armed forces on furlough; and a large increase in the movement of fresh vegetables, fresh and dried fruits, and melons, as a result of abundant crops and sustained market demand at ceiling prices.

The total freight revenues and fluctuations therein by commodity groups are shown in the following tabulation:

	1944	+Increase -Decrease	Per Cent
Products of Agriculture .....	\$82,882,806	+ \$5,728,505	7.42
Animals and Products .....	11,610,078	+ 488,554	4.39
Products of Mines .....	26,830,111	- 3,354,261	11.11
Products of Forests .....	42,174,473	+ 960,878	2.33
Manufactures and Miscellaneous .....	267,619,653	+ 14,557,389	5.75
Total Carload .....	\$431,117,121	+ \$18,381,065	4.45
Less-than-carload .....	15,285,562	+ 457,497	3.09
Total .....	\$446,402,683	+ \$18,838,562	4.41

The fluctuations in freight revenues include substantial decreases in earnings from the movement of many commodities which had reached wartime peak volume in 1942 or 1943. Among these were petroleum oils and gasoline, mainly because a larger proportion of requirements in eastern states was supplied by pipe lines and tank ships; certain iron and steel products, chiefly attributable to smaller requirements by Pacific Coast shipyards, and for construction of new plants for manufacture of war materials; and cement, gravel, sand and asphalt, principally as the result of substantial completion of military depots, airfields and access roads.

Increases in freight rates and accessorial charges (Ex Parte 148) which were suspended by the Interstate Commerce Commission on May 15, 1943, have been further suspended until the end of 1945.

**Expenses.** The increase of 14% in operating expenses is chiefly due to the employment of larger forces, the higher wage rates effective throughout the year, greater quantities of materials used, and increased prices of locomotive fuel and many items of material and supplies.

Approximately 535 track-miles of new rail weighing 113 lbs. and 132 lbs. per yard, and 464 track-miles of relayer rail of various weights were laid in repairs and renewals; compared with 436 track-miles of new rail and 412 track-miles of relayer rail laid in 1943.

The average number of employees of the Transportation System was 90,801, an increase of 7,719, or 9.3%. Payrolls comprised \$254,864,315 of total operating expenses, an increase of \$32,128,443, or 14.4%.

**Taxes.** Railway tax accruals took 63.2 cents of each dollar of net revenue from railway operations for 1944, and were equivalent to \$34.72 a share of the outstanding capital stock of Southern Pacific Company. The accruals by classes of taxes were as follows:

	Accruals	+Increase -Decrease
Federal unemployment insurance taxes .....	\$7,608,907	+ \$807,400
Federal retirement (pension) taxes .....	8,240,356	+ 876,190
Federal taxes on income and excess profits .....	99,126,660	+ 3,274,032
Other Federal and miscellaneous taxes .....	2,120,825	- 686,848
State, County, and City taxes .....	13,884,515	- 8,861
Total .....	\$130,981,263	+ \$4,261,913

There was a net increase in tax accruals due mainly to a larger proportion of income being subject to the higher rated excess profits tax, partly offset by a correspondingly smaller proportion of income being subject to regular income tax. Increased accruals for Federal unemployment insurance and retirement taxes reflect increased forces and higher rates of pay. Federal capital stock tax decreased.

Holdings of U. S. Treasury Notes, Series C, included in temporary cash investments as of December 31, 1944, were sufficient to cover estimated outstanding liability for Federal taxes on income.

**Rents.** A net decrease in joint facility rents, due to less use than in 1943 of tracks of the solely controlled Inter-California

Railway Company for freight train movements, was partly offset by a net increase in equipment rents resulting from greater utilization of passenger-train cars of other companies during the year.

**Other Income.** The net increase in income from sources other than railway operations was principally due to an increase of \$628,772 in interest income included in Income from Funded Securities and Other Income Accounts, and derived mainly from increased interest on U. S. Treasury notes purchased in respect of Federal tax liability and for other corporate purposes. There was a decrease of \$138,964 in miscellaneous deductions from income, principally miscellaneous rents and delayed income debits.

**Fixed Charges.** The decrease in interest on debt reflects, in part, the further reduction in funded debt referred to elsewhere in this report.

## Traffic Statistics—Southern Pacific Transportation System

Year 1944 Compared with Year 1943

	Year 1944	+Increase -Decrease	Per Cent
Average miles of road operated during year .....	12,594.99	- 50.54	.40
Freight train-miles .....	41,324,656	- 468,556	1.12
Tons carried—Revenue freight .....	95,077,069	- 1,567,502	1.62
Net ton-miles—Revenue freight .....	40,306,573,040	+ 256,937,691	.64
Loaded cars per freight train .....	37.57	+ 1.75	4.89
Net tons per freight train—All freight .....	1,044.74	+ 26.59	2.61
Freight revenue per net ton-mile—Revenue freight .....	1.107 cents	+ .039 cents	3.65
Average distance carried—Revenue freight (miles) .....	423.94	+ 9.54	2.30
Passenger train-miles .....	25,021,658	+ 1,232,203	5.18
Passengers carried—Revenue .....	24,903,639	+ 1,557,610	6.67
Passenger-miles—Revenue .....	8,110,693,048	+ 761,347,879	10.36
Passengers per passenger train—Revenue passengers .....	326.69	+ 14.98	4.81
Passenger revenue per passenger-mile .....	1.657 cents	- .034 cents	2.01
Average distance carried—Revenue passengers (miles) .....	325.68	+ 10.88	3.46

## Separately Operated Solely Controlled Affiliated Companies

Net income of separately operated Solely Controlled Affiliated Companies operating in the United States, shown in the Income Account excludes interest, totaling \$2,159,065 and \$2,333,115 for 1944 and 1943 respectively, accrued by Pacific Electric Railway Company and Northwestern Pacific Railroad Company on bonds of those companies owned by Southern Pacific Company but not included in its income for those years.

Southern Pacific Railroad Company of Mexico had a net loss of \$548,439 for 1944 compared with a net income of \$1,085,095 for 1943, or a reduction in net earnings of \$1,633,534. This was due principally to increased maintenance expenditures under an extensive rehabilitation program, and higher wage rates. Also affecting the net results were charges amounting to \$372,530 for depreciation of roadway property, accrual of which commenced January 1, 1944. Income charges for amortization of investment in property subject eventually to reversion to the Mexican Government were \$583,046 compared with \$619,475 in 1943.

## Improvements to Transportation Property

The increase during the year in investment in transportation property of Southern Pacific Transportation System amounted to \$10,391,867, as follows:

Road extensions .....	\$	764
Additions and betterments:		
Road property .....	\$10,568,059	
Rolling stock .....	7,494,248	
Floating equipment .....	8,312	
Miscellaneous equipment .....	64,826	18,135,445
Total expenditures .....		\$18,136,209
Less:		
Road property retired .....	\$6,216,266	
Rolling stock retired .....	1,627,167	
Floating equipment retired .....	278	
Miscellaneous equipment retired .....	23,500	
Miscellaneous adjustments—Net debit .....	122,869	7,744,342
Net increase .....		\$10,391,867

The total of \$18,136,209 expended for improvements to transportation property during 1944 compares with \$23,618,674 of such expenditures in 1943. The principal improvements completed in 1944 were as follows:

**Road Property.** Approximately 530 track-miles of new rail

and 353 track-miles of relayer rail, laid in the renewals mentioned elsewhere in this report, replaced rail of lighter weight. The cost of the added weight of rail was charged to investment in road property. Three new sidings and twenty-five extensions to sidings were constructed aggregating 9.1 miles of track; and at seventeen terminals additional yard trackage was constructed, aggregating 11.6 miles of track.

Installations of Centralized Traffic Control were placed in service during 1944 on 33.4 miles of main line between Colton and Indio, California, and 43.4 miles of main line between Vista and Massie, Nevada. Work on these projects was commenced in 1943, and the system of traffic control had been placed in operation on the initial 37.4 miles of line between Colton and Indio at the close of that year. Installation of the traffic control system on approximately 53 miles of main line between Lemay and Bridge, Utah, including the length of the Great Salt Lake trestle, was commenced in September 1944 and is scheduled for completion in 1945.

A double-track steel bridge 450 feet long with lift span, across the San Joaquin River near Lathrop, California, was placed in service in August 1944, replacing a single-track steel bridge with a swing span. Construction of the new bridge and second-track trestle approaches provides continuity of double track in the main line between Tracy and Stockton, California.

A continuous cantilever type, single-track steel bridge, 1,390 feet long was placed in service in December, 1944, replacing a 1,515-foot steel viaduct across the Pecos River on the main line between Sanderson and Del Rio, Texas. The project involved a line change 1.7 miles long. Replacement of the viaduct was necessary to avoid expensive renewal of critical members of the structure with consequent interruption of traffic, and to eliminate restriction of train loading below the present-day economical minimum.

In the district immediately west of the Pecos River substantial improvement in alinement and an aggregate reduction of 1.8 miles of main track was accomplished by construction of a line change 5.2 miles long and reduction of curvature at other points in that district. Material excavated in effecting curvature reduction was used to fill 210 linear feet of east approach and 70 linear feet of west approach of a steel viaduct across Eagle Nest Canyon. Near Nacodoches, Texas, a line change 3,170 feet long was constructed to improve grade conditions. Construction of 2.2 miles of new main line, between Humphreys and Lang on the San Joaquin Valley Line in southern California, eliminated two timber-lined tunnels of smaller than present standard bore which had required diversion of certain loads of war freight to other lines, and improved the grade and alinement. Short line changes were made in the vicinity of Selby, Jalama and Arlight, California, to place sections of main line on better roadbed, and near Vanar, Arizona, to improve alinement.

Under authority of the Interstate Commerce Commission 2.8 miles of branch line were constructed to provide service to Yuba City, California, and adjacent agricultural district after abandonment on December 31, 1944 of 12.3 miles of the branch line which formerly served that area. The portion of line abandoned was subject to recurring flood damage and consequent interruptions of service.

At Edison, California, 23.5 acres of land were purchased and service driveways and 1.2 miles of tracks were constructed to serve shippers of potatoes and other vegetables. Additional driveways and trackage are to be constructed. Similar facilities, in which Southern Pacific has one-half interest, were provided at Arvin, California. At Sheridan, Texas, 3.2 miles of tracks were constructed to serve an oil industry; and at Long Point, Texas, a one-half interest was acquired in 1.8 miles of new tracks serving an industry producing sulphur.

Station improvements included extension of passenger-train platforms, construction of subway to platforms, and rearrangement and construction of trackage at the passenger station, Yuma, Arizona; rearrangement and improvement of public facilities in passenger station at Fresno, California; and an addition to baggage-room at San Francisco.

Improved locker-room and sanitary facilities for employees were provided at several terminals, and living quarters for section forces at a number of locations were improved.

Communication facilities were improved by installation of 3-channel telephone carrier on an existing circuit between San Francisco and Los Angeles, California; telephone train dispatching circuit between Bakersfield and Los Angeles, California;

## Balance Sheet of Southern Pacific Transportation System

Southern Pacific Company and Transportation System Companies, Consolidated, Excluding Inter-Company Items)  
December 31, 1944 Compared With December 31, 1943

The assets reported below are stated on the basis of the classifications prescribed by the Interstate Commerce Commission. No attempt has been made to adjust book values of assets to current estimated values. However, the balances in reserves for depreciation and amortization have been applied as deductions from book value of investments.

ASSETS			
	December 31, 1944	+ Increase - Decrease	
<b>INVESTMENTS</b>			
Transportation property	\$1,512,519,145.95	+	\$10,391,866.53
Donations and grants—Credit	21,738,363.12	-	182,494.60
Miscellaneous physical property	22,446,947.64	-	2,821,939.96
Sinking funds	212,233.12	-	587,823.44
Affiliated companies—Securities and investment advances	260,808,571.93	-	5,493,952.83
Other investments	25,770,301.53	-	911,129.35
Total investments	\$1,800,618,837.05	+	\$394,526.35
<b>Deduct:</b>			
Reserve for adjustment of investment in securities	\$137,384,374.06	-	\$38,692.31
Reserves for accrued depreciation and amortization	217,484,873.25	+	25,944,099.56
Total deductions	\$354,869,247.31	+	\$25,905,407.25
Net investments	\$1,445,749,589.74	-	\$25,510,880.90
<b>CURRENT ASSETS</b>			
Cash	\$55,266,249.58	-	\$472,108.14
Temporary cash investments (U. S. Treasury Notes and Certificates)	112,000,000.00	+	16,149,446.05
Accounts receivable	89,183,795.23	-	8,687,626.93
Material and supplies	33,463,628.68	+	6,639,378.44
Other current assets	16,344,035.56	-	18,515,001.33
Total current assets	\$306,257,709.05	-	\$4,885,911.91
<b>DEFERRED ASSETS AND UNADJUSTED DEBITS</b>			
	\$41,503,885.08	-	\$287,557.29
Grand total	\$1,793,511,183.87	-	\$30,684,350.10
<b>LIABILITIES</b>			
<b>CAPITAL STOCK HELD BY THE PUBLIC</b>			
Southern Pacific Company (3,772,763.0564 shares, no par value)	\$383,581,150.64	-	
Transportation System Companies	1,400.00	+	\$200.00
Total stock	\$383,582,550.64	+	\$200.00
<b>LONG TERM DEBT</b>			
Funded debt unmatured:			
Held by the public	\$510,283,383.78	-	\$69,529,718.51
Held by Solely Controlled Affiliated Companies	1,020,000.00	-	4,122,000.00
Held in sinking funds by Transportation System Companies	—	-	770,000.00
Total funded debt unmatured	\$511,303,383.78	-	\$78,421,718.51
Equipment obligations	\$51,931,752.32	-	\$7,067,996.00
Amounts payable to affiliated companies—Open accounts	17,209,280.24	+	4,258,465.21
Total long term debt	\$580,444,416.34	-	\$77,231,249.30
<b>CURRENT LIABILITIES</b>			
Accounts and wages payable	\$84,831,334.94	+	\$7,207,258.10
Interest matured unpaid	5,976,606.04	+	1,230,905.82
Interest payable January 1st	2,998,032.50	-	640,468.75
Unmatured interest accrued	5,080,326.86	-	356,137.01
Accrued tax liability	114,465,994.74	+	3,775,875.71
Other current liabilities	12,516,279.34	-	5,185,472.50
Total current liabilities	\$225,868,574.42	+	\$6,031,961.37
<b>DEFERRED LIABILITIES AND UNADJUSTED CREDITS</b>			
	\$53,952,358.07	+	\$10,860,826.90
<b>CONSOLIDATED ADJUSTMENT</b>			
Excess of inter-company liabilities over assets eliminated	\$67,083,932.67	-	\$694.55
<b>SURPLUS</b>			
Appropriated surplus	\$5,477,270.30	+	\$51,424.49
Profit and loss—Balance	477,102,081.43	+	29,603,180.99
Total surplus	\$482,579,351.73	+	\$29,654,605.48
Grand total	\$1,793,511,183.87	-	\$30,684,350.10

and telephone conversational circuit between Los Angeles and Indio, California. Installations of telephone conversational circuits between Houston, San Antonio, and Del Rio, Texas, were approaching completion at the close of the year. Multiplex telegraph printers replaced duplex printers on the circuit between

Portland, Oregon, and San Francisco, and teletypes and telegraph printers were installed in various offices to expedite communications.

The new locomotive erecting shop at Sparks, Nevada, mentioned in the 1943 report, was placed in service February 9, 1944. Various shop improvements were completed at other locations, including installation of a number of modern machine tools. Additional facilities were provided for supplying water to locomotives, including 8 new wells, 3 water storage tanks, renewal with larger pipe of a total of 12 miles of pipe lines, and installation of water softeners at 4 locations.

**Rolling Stock.** The following units of new rolling stock were received and placed in service during 1944, completing orders outstanding at the beginning of the year:

- 10 articulated consolidation (4-8-8-2) type, oil-burning locomotives with 22,000-gallon capacity tenders;
- 29 diesel-electric 1,000 horse-power switchers;
- 300 drop-bottom gondola cars, all steel, 50-ton capacity;
- 200 tight-bottom gondola cars, steel underframes and ends, wood sides and bottoms, 50-ton capacity.

In December 1944 order was placed for 500 box cars of light-weight construction, for delivery commencing in the latter part of 1945.

Many units of owned equipment were improved during the year, although such work was, greatly restricted by shortage of manpower and certain materials.

**Retirements.** Retirements of road property not replaced included 22.4 road-miles of branch lines retired under authority of the Interstate Commerce Commission, including the 12.3 miles of branch line mentioned in the comments on road property, and 2.9 miles of branch line between Colton and San Bernardino, California, which were sold to Pacific Electric Railway Company for operation by that company. Approximately 22.3 miles of sidings, spurs and yard tracks which were no longer required at various locations on operated lines were retired during the year.

Units of rolling stock retired in 1944 consisted of 2 locomotives, 3 passenger-train cars, 306 freight-train cars, and 42 company service cars, which were worn out or in some instances damaged beyond repair.

#### Financial

**Funded Debt and Equipment Obligations.** The net decrease during 1944 in the principal amount of unmatured funded debt and equipment obligations of Southern Pacific Transportation System Companies held by the public was \$76,597,715. This sum includes \$8,036,125 of funded debt called for redemption which had not been presented for payment by December 31, 1944. The following items comprise the net decrease:

<b>Southern Pacific Company:</b>	
Ten-Year 3½% Secured Bonds, due July 1, 1946, called for redemption January 1, 1944, at 101	\$29,009,000
Central Pacific Stock Collateral 4% Gold Bonds, due August 1, 1949—including \$16,303,125 called for redemption December 1, 1944, at par	19,444,125
Forty-Year 4½% Gold Bonds, due March 1, 1968	500,000
Forty-Year 4½% Gold Bonds, due May 1, 1969	2,000,000
Equipment obligations	6,983,579
Other funded debt	158,341
<b>Central Pacific Railway Company:</b>	
Through Short Line First Mortgage 4% Gold Bonds, due October 1, 1954, called for redemption October 1, 1944, at 107½	9,640,000
Thirty-five Year European Loan 4% Bonds of 1911, due March 1, 1946	1,245,753
First Refunding Mortgage 4% Gold Bonds, due August 1, 1949—including \$27,579,000 exchanged for new First and Refunding Bonds, Series A	29,099,000
Thirty-five Year Guaranteed 5% Gold Bonds, due August 1, 1960	6,000,000
<b>Other Transportation System Companies:</b>	
Equipment obligations (\$84,417) and other funded debt (\$12,500)	96,917
Gross decrease	\$104,176,715
<b>Deduct:</b>	
Central Pacific Railway Company First and Refunding Bonds, Series A, due August 1, 1974 (interest at 4¼% to August 1, 1949, and 3½% thereafter) issued	27,579,000
Net decrease in unmatured funded debt and equipment obligations held by the public	\$76,597,715

The liability at call prices for bonds called for redemption but not presented for payment by December 31, 1944 is included in Other Current Liabilities and funds to discharge this liability are included in Other Current Assets in the balance sheet.

The decrease during 1944 in separately operated Solely Controlled Affiliated Companies unmatured funded debt and equipment obligations held by the public was \$4,905,534.

In 1944, the Transportation System and separately operated Solely Controlled Affiliated Companies operating in the United States made expenditures or set aside funds in the aggregate amount of \$81,129,048 for the retirement of funded debt. This amount includes \$29,299,090 of funds set aside in 1943 for the redemption on January 1, 1944 of \$29,009,000 principal amount of Southern Pacific Railway Ten-Year 3½% Secured Bonds, due July 1, 1946, and also includes funds set aside in 1944 for the redemption of other issues called for redemption in 1944 but not presented for payment by December 31, 1944.

**Cash Expenditures for Additions and Betterments.** In 1944, the Transportation System and separately operated Solely Controlled Affiliated Companies operating in the United States expended \$19,421,197 (exclusive of non-cash items) for additions and betterments, including equipment. No equipment obligations were issued during the year.

**Capital Stock.** There was no change during the year in the number of shares of capital stock of Southern Pacific Company issued and outstanding. The number of stockholders at the end of the year was 42,993 compared with 39,976 at the end of 1943. Dividends aggregating \$2.50 per share were declared during the year on capital stock of Southern Pacific Company.

#### General

**Unadjusted Charges on Government Freight.** Charges for transportation of Government freight collected or in process of collection by Southern Pacific Company and its affiliated companies, which have been withheld from revenue and carried in suspense as Unadjusted Credits, aggregated approximately \$16,700,000 as of December 31, 1944. That amount includes (1) the difference between commercial rates assessed and land grant rates on traffic on which the Government has claimed that land grant rates are applicable, and (2) amounts to be refunded under retroactive agreements entered into in 1944 between transcontinental railroads and the United States and Canadian Governments covering rates on Government traffic exported through certain Pacific Coast ports. Amounts withheld from revenues in years 1941 to 1944 inclusive, arising from the disputed land grant items, have been treated as taxable income in tax returns for those years. Amounts to be refunded as a result of the 1944 export rate agreements have been treated as a deduction in computing 1944 tax accruals.

The accumulation as taxable income of money which may later have to be refunded with possible adverse results from an income tax standpoint was greatly curtailed as a result of the export rate agreements mentioned above and of the adoption on March 1, 1944, of the practice of rendering separate bills for disputed land grant deductions, which bills, with few exceptions, have not been currently paid.

Test suits instituted during 1943 and 1944 for the purpose of adjudicating disputes arising from the land grant deductions are pending.

**Reemployment of War Veterans.** Southern Pacific Company and affiliated companies are observing a policy under which former employees who left their positions to enter the U. S. military, naval or merchant marine service will continue to accumulate seniority rights during their absence from employment, which will give them, on their return, the right of reemployment in the positions to which they would have been entitled had they remained in the Company's service. This policy conforms fully to the requirements of law, and also provides for maintaining the continuity of service upon which pensions granted by the Company are based.

At the end of the year, 1,728 of such former employees had been reemployed.

**Reorganization of St. Louis Southwestern Railway Company.** In the matter of reorganization of St. Louis Southwestern Railway Company, referred to in previous annual reports, the appeals taken from the order by which the United States District Court on February 9, 1944, approved, without change, the plan of reorganization submitted to it by the Interstate Commerce Commission are pending before the United States Circuit Court of Appeals at Kansas City, Missouri. It is expected that Court will render its decision within the next few months.

By order of the Board of Directors,  
A. T. MERCIER,  
President



upon continuance of wholehearted cooperation from business."

He went on to discuss briefly the tight car-supply situation, urging the "utmost efficiency in the use of cars." He also mentioned the Chamber's position in favor of legislation repealing land-grant rates; and the two recent reports wherein the Transportation and Communication Department Committee opposed pending proposals to liberalize the Railroad Retirement and Railroad Unemployment Insurance acts, and favored legislation to exempt carrier agreements from the operation of the anti-trust laws (see *Railway Age* of April 14, 1945, page 673).

### Open Health Course for Dining Car Employees at Chicago

In cooperation with all railroads in the Chicago area, a program of health education for approximately 6,000 stewards, waiters, cooks and other food handlers in dining car service which will be conducted by staff representatives of the Chicago Board of Health and the United States Health Service at Chicago opened on April 17.

A faculty headed by Dr. Herman N. Bundesen, president of the Board of Health, and approved by Col. F. V. Meriwether, director of District No. 3 of the United States Public Health Service, will meet two classes daily four days a week. The course will include bacteriology, cleaning and sterilizing equipment, prevention of food poisoning and personal hygiene.

### I. C. C. Refuses to Liberalize Mixed-Carload Rule

The Interstate Commerce Commission has dismissed a complaint wherein it had been asked to condemn as unjust and unreasonable rule 10 of the Consolidated Freight Classification, relating to freight charges on mixed carloads, and rules of similar import in traffic containing westbound transcontinental rates and westbound rates to points in Montana. The commission's report in No. 28989 thus rejects the recommendations of Examiner Claude A. Rice whose proposed report, noted in the *Railway Age* of July 15, 1944, had recommended an order requiring liberalization of the rule.

Rule 10 provides in effect that charges on mixed carloads shall be assessed at the highest classification rating or commodity rate and the highest carload minimum weight applicable to articles in the car, subject to certain exceptions, as where lower charges will result from treating the carload as two separate carload shipments or from considering some of the articles as constituting separate I. C. I. shipments. Exceptions to Official and Southern classifications have practically superseded rule 10 with more liberal arrangements in the territories where those classifications apply.

The complainant, Illinois Territory Industrial Traffic League, contended that it was unreasonable and contrary to the spirit of section 6 of the Interstate Commerce Act to retain in the classification a rule which purports to fix the basis of charges on mixed shipments throughout the country when a more liberal rule is actually in effect in Official and Southern territories

under the exceptions. The commission noted, however, that the complaint did not put into issue the mixing rules in Official and Southern territories, adding that "apparently the allegation of undue prejudice and preference was withdrawn because of fear that it might lead to restoration of rule 10 in those territories." In other words the complainant "is interested only in such uniformity as would be brought about by reductions in charges on mixed shipments to and within the West."

**Changes Asked for**—The complaint asked the commission to modify rule 10 in the following respects: Component articles in a mixed carload would be charged at the actual or authorized estimated weight and at the class or commodity rate applicable to each article if it were shipped separately in a straight carload; while the carload minimum weight would continue to be the highest provided for any article in the mixed carload, any deficit in the minimum weight would be charged for at the lowest rate or rating applicable to any article in the mixed carload; any article for which alternative rates and minimum weights are provided would be charged for at the straight carload rate which would produce the lowest charge on the mixed carload. Such changes would make the rule more liberal than arrangements now available in Official and Southern territories under the exceptions.

In making its adverse finding the commission noted that while it has prescribed some mixing rules, the most extensive departures from rule 10 have been made voluntarily by the railroads with the object of increasing traffic. It added that the question is primarily in the realm of the carriers' managerial discretion. Also, it noted that the avowed purpose of the complaint was to bring about a reduction in freight charges which in the aggregate would be "substantial." In that connection the complaint did not bring into issue any of the individual rates.

The report notes that Commissioner Porter "concurs in the result," while Commissioners Aitchison and Alldredge did not participate. There were 24 intervenors in support of the complaint and 42 in opposition. The latter were concerned lest the modification proposed would bring about smaller units of sale to the detriment of jobbing and warehousing industries.

### Motley Leaves O. D. T. Personnel Division Directorship

The Office of Defense Transportation has announced the appointment of Robert H. Glenn as acting director of its Division of Transport Personnel, following the resignation of A. W. Motley, effective April 15.

Mr. Motley, who was on loan to O. D. T. from the Social Security Board, returned to that organization to act as assistant director of its Bureau of Employment Security. During his connection with O. D. T., transportation industries, including the railroads, for which that office acts as claimant agent, were successful in obtaining substantial draft deferments of essential employees under age 30.

Mr. Glenn joined the O. D. T. staff in February, after having been associated with

the War Production Board since 1941. Before that time he held offices in the Brotherhood of Locomotive Firemen & Enginemen for a number of years, and from 1937 to 1941 he was editor of the brotherhood magazine. He was employed by the Pennsylvania from 1907 to 1916 and by the Atlantic Coast Line from 1921 to 1923.

### A. S. M. E. Semi-Annual Meeting

The semi-annual meeting of the American Society of Mechanical Engineers will be held at 11 a.m., June 18, at the Stevens Hotel, Chicago. The meeting will be devoted solely to the report of the tellers on the ballot for changes in the constitution which has now been distributed to the members of the society.

### Freight Car Loading

Loadings of revenue freight for the week ended April 14 totaled 846,391 cars, the Association of American Railroads announced on April 19. This was an increase of 81,628 cars or 10.7 per cent above the previous week, an increase of 47,708 cars or 6.0 per cent above the corresponding week last year, and an increase of 65,483 cars or 8.4 per cent above the comparable 1943 week.

Loading of revenue freight for the week ended April 7 totaled 764,763 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading			
For the Week Ended Saturday, April 7			
District	1945	1944	1943
Eastern .....	151,915	153,324	160,803
Allegheny .....	167,341	176,877	177,033
Pocahontas .....	39,839	53,164	57,886
Southern .....	118,286	124,423	124,805
Northwestern .....	98,224	89,169	81,522
Central Western .....	121,258	118,933	115,136
Southwestern .....	67,900	72,095	71,834
Total Western Districts .....	287,382	280,197	268,492
Total All Roads .....	764,763	787,985	789,019
Commodities			
Grain and grain products .....	46,341	40,120	41,959
Live stock .....	14,536	14,179	13,765
Coal .....	118,147	167,312	173,831
Coke .....	13,443	14,953	14,673
Forest products .....	39,088	45,737	42,659
Ore .....	35,437	21,310	21,196
Merchandise I. C. I. .....	108,935	108,604	99,519
Miscellaneous .....	388,836	375,770	381,417
April 7 .....	764,763	787,985	789,019
March 31 .....	835,226	786,106	772,102
March 24 .....	816,058	777,578	787,340
March 17 .....	815,789	785,195	768,134
March 10 .....	766,290	780,265	769,045

Cumulative Total,  
14 Weeks .. 10,834,631 11,016,838 10,600,929

**In Canada.**—Carloadings for the week ended April 7 totaled 67,807 as compared with 62,264 for the previous week and 63,008 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada	63,008	41,320
Apr. 8, 1944 .....	67,807	39,455
Apr. 7, 1945 .....	67,807	
Cumulative Totals for Canada:		
Apr. 8, 1944 .....	948,171	562,031
Apr. 7, 1945 .....	911,561	520,786

### Emergency Board Report

The White House this week made public the report of a National Railway Labor Panel emergency board which investigated a dispute between the Atlantic Coast Line and its employees represented by the

# TODAY'S FEATS



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Railroads that have replaced older motive power with Lima Super-Power Steam Locomotives, not only are better able to meet present-day schedules, but will be prepared for the increasingly exacting traffic requirements of the near future.



**LIMA LOCOMOTIVE WORKS, INCORPORATED, LIMA, OHIO**

Brotherhood of Railway Clerks. Three issues were involved—the number of jobs covered by the B. of R. C. agreement, sick-leave arrangements, and a question of compensation for Saturday afternoon work.

With respect to the first, the board recommended that the agreement be extended to cover additional clerical positions. The sick-leave dispute involved plans for formalizing present sick-leave arrangements, and the board recommended acceptance of the management's proposal. With respect to the Saturday-afternoon-pay issue, the board found that the jobs involved are rated on a 48-hour week basis, and thus the men are entitled to no additional compensation for Saturday afternoon work which had not formerly been required in periods of light traffic.

Members of the board were Chairman Frank M. Swacker, attorney of New York; Norman J. Ware, industrial relations consultant of Hartford, Conn., and Walter Gilkyson, attorney of New Hartford, Conn.

### I. C. C. Report on Temperature Control Services

Eastern railroads will be required to furnish carriers' protective services (i. e., temperature control services) to perishable freight against cold under an Interstate Commerce Commission decision which also determines the cost of providing such services throughout the country and prescribes reasonable charges therefor. The report in the No. 20769 proceeding also requires the railroads to meet demands of Idaho, Washington, and Oregon apple and pear shippers for carriers' protective service based upon temperature within the car; but it dismisses a related complaint case (No. 28375) wherein an Idaho complainant assailed as unjust and unreasonable tariff provisions which required him to accept and pay for carriers' protective services on certain shipments of potatoes.

In leading up to its finding that the failure of the eastern roads to provide carriers' protective service against cold is "unjust and unreasonable," the commission noted that such services are now "arbitrarily cut off at approximately the Illinois-Indiana state line." The eastern roads, however, do hold themselves out to furnish, upon the request of shippers, heaters and fuel at a charge of \$1.50 per heater per 24-hour period.

Their position has been that additional facilities would have to be provided in order to enable them to furnish carriers' protective services, and that "the comparatively few days when the temperature in the East is low enough to require protection against cold do not warrant procuring the additional facilities." Under the decision the eastern lines are given six months to establish the service; and if they fail to meet that deadline the commission "shall reopen this proceeding for such further action as may be necessary with a view to prescribing such service and the charges therefor."

**What It Will Cost**—The protective services involved in the proceeding are those provided under the rules of section 5 of the Perishable Protective Tariff. The report prescribes for the various elements a scale of charges based on costs. The cost

data cover the 1937-1938 heater season and the carriers put the total at \$1,463,225.24, a figure which the commission adjusted downward to \$1,098,337.53. This amount was distributed among the services performed under the various tariff rules, these totals by rules being further adjusted to allow for inspection and administrative expenses and show the "added cost" of the protective services.

The largest "added cost" figure was the \$455,549.14 assigned to services under rules 509 and 515 which cover the basic protective services provided in heater territory. In breaking this down to a per car basis, the commission prescribed six rate bases varying with distances. The prescribed charges range from \$8.50 per car to \$27.50 for optional services under rules 509 and 515; and from \$5 to \$17 for compulsory service under those rules.

The report leaves to the carriers the fixing of charges for preheating cars and papering cars, indicating its view that a charge of 75 cents for preheating would be reasonable. At the same time it suggested that carriers holding themselves out to perform these services should state in their tariffs the precise service offered and the charges therefor. For services provided under rule 510 (servicing shippers' heaters), the commission finds that a charge of 40 cents per heater per 24-hour period would be reasonable in addition to present charges for fuel and for refueling or lighting heaters. An increase from \$1.50 to \$2 per day per heater per 24-hour period is prescribed for service under rules 513, 514, 516, 519, 526 and 527 which cover the furnishing of heaters.

Rule 530's present penalty charge of \$2 per car per 24-hour period for detention is approved by the commission; while the charge for service at intermediate stops or hold points under sections 2 and 3 of rule 530 are increased from \$2 to \$2.40 per car per 24-hour period.

### March Operating Revenue Up 0.4 Per Cent

From preliminary reports of Class I roads representing 81.7 per cent of total operating revenues, the Association of American Railroads has estimated that the March gross totaled \$653,615,129, an increase of 0.4 per cent above the \$651,318,992 reported for March, 1944. Estimated March freight revenues were \$501,001,281, compared with \$487,726,808, an increase of 2.7 per cent. Estimated passenger revenues were \$108,038,725, compared with \$120,037,430, a decrease of 10 per cent.

### Status of Tulsa Union Depot

The Interstate Commerce Commission, Division I, has issued its report in the No. 29145 proceeding involving the status of the Tulsa Union Depot Company, finding that the company is a lessor as defined in section 20 (8) of the Interstate Commerce Act. The commission thus adopted the recommendations of Examiner Howard Hosmer's proposed report and rejected the advice of its Bureau of Law which had supported a finding that the company is "an operating common carrier."

The proceeding was instituted by the commission following the Depot Com-

pany's refusal to file reports under section 20 on the ground that the section does not apply to it. The decision holds that the commission's power to require reports from lessors "is the same as that which we have with respect to a carrier." And it requires the company to file reports as a switching and terminal company under classification S2, Exclusively Terminal. The majority report represents the view of Commissioners Porter and Lee. Commissioner Mahaffie, dissenting, would have found the company to be a common carrier by railroad.

### Trimble May Head I. W. C.

Secretary of Commerce Wallace is understood to have under consideration the appointment of South Trimble, Jr., solicitor of the Commerce Department, to the presidency of the Inland Waterways Corporation. Vice-President John S. Powell has been acting president of I. W. C. since last August when former President Chester C. Thompson resigned.

### Santa Fe Officers Hold Loss and Damage Meetings

Plans for an intensive campaign to combat increases in loss and damage were advanced at a series of meetings held recently by officers of the Atchison, Topeka & Santa Fe at Albuquerque, N. M., Needles, Cal., Fresno, Los Angeles, and Newton, Kan., and Kansas City.

O. L. Gray, assistant to the vice-president, was chairman of the meetings, and opened each session with a declaration of the purpose and aim of the regional conferences. He said, in part:

"The magnitude of our claim payments warrants extraordinary attention and definite action. It is a problem that is the concern of every employee. While we have moved an unprecedented volume of business in 1944, our claim cost payments last year were the highest in many years. At the present time we are sorely pressed for personnel to handle operations. This greatly emphasizes the necessity for the conservation of man-power.

"Many things enter into increased losses. We have a great many new, inexperienced employees and we have been forced to use our equipment to the limit, all of which tends to create conditions leading to losses. An intensive educational campaign will help us curtail some of these losses."

Mr. Gray submitted a series of charts and graphs and the following figures:

Cause	1943	1944
Unlocated Loss	\$176,563	\$346,633
Unlocated Damage	1,253,385	1,781,063
Improper handling in trains, yards, or stations	39,500	41,593
Defective or unfit equipment	32,573	48,228
Temperature failures	47,029	74,926
Delays	34,568	77,358
Theft	5,253	8,748
Concealed Damage	221,206	370,303
Train Accidents	60,411	96,846
Fire, Marine and Catastrophes	50,803	64,926
Error of Employees	30,027	49,582
Grand Total from all causes	\$1,951,318	\$2,960,206

Among the important items studied in carload freight handling was unlocated damage and improper handling; concealed damage; defective equipment; inadequate containers; unlocated loss; theft, delay;



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are equipped with

**FRANKLIN TYPE "E" LOCOMOTIVE BOOSTERS\***



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are used for both fast passenger and freight service to  
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**FRANKLIN RAILWAY SUPPLY COMPANY, INC.**

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April 21, 1945

improper refrigeration and ventilation; inspection of damaged freight; perishable freight; livestock; and a number of items under the heading of dead freight. L. c. l. freight was given careful consideration also, and many ideas advanced for its protection in handling.

## Urges St. Lawrence Project Be Junked

(Continued from page 722)

fications such as would be necessary in bidding on the job.

"The simple fact is that nobody today knows what the project would cost and therefore what would be the share to be borne by the United States. Until that information is obtained and disclosed the project cannot be approved as a prudent investment on the part of this government."

According to the Association's statement the principal transportation benefits claimed by the proponents of the project are, 1) The West needs this outlet for its exports. 2) Lack of this water route retards its development. 3) Rail transportation costs to seaboard are too high.

"The argument that the West needs the St. Lawrence Seaway as an outlet for its exports would carry a more convincing ring if some practical operating American steamship company, engaged in the deep sea trades, would make its voice heard in support of the project. During 1900 to 1930, while the population of the United States increased some 62 per cent, the rate of increase in population of three typical Great Lakes cities was much more rapid. The rate of increase at Chicago and Duluth was approximately 100 per cent, while at Detroit it reached, in round figures, 500 per cent.

"As to the contention that rail transportation costs between the West and the seaboard are too high, no convincing showing has been made that they would be materially reduced were the St. Lawrence Seaway, with a channel depth of 27 feet, in operation. For rate-making purposes it has been the custom to assume that three miles of ocean transportation is about the equivalent of one mile by rail. While the water distance from Duluth to New York, for example, via the St. Lawrence route is, roughly speaking, about three times the rail distance, the abnormal and extra costs involved via the water route, as contrasted with navigation in open waters, would shrink the ratio for rate making purposes to about 1½ or 2 water miles being equivalent to one rail mile. The necessarily high insurance rates on both hull and cargo through this difficult and dangerous water route also would have to be taken into account in fixing transportation rates via it.

"Then again, the time in transit constitutes an important element. Goods in transit are in fact an investment of funds that is not producing a return. The transit time via the proposed water route would be four or five times that of the rail route between the West and the seaboard, again using the Duluth to New York run as a typical instance.

"While the railroads are perfectly able to speak for themselves as to the effect it

would have upon their industry, it may not be amiss to consider briefly the effect it would have upon the buyers of rail transportation.

"The proponents of the Seaway predicate the entire navigation feature on the bland assumption that the railroads will continue to maintain their services and facilities and that Chicago, Duluth, Buffalo and New York can continue geared for rail and water movement notwithstanding the competition that would be afforded by the proposed 'Canadian' canal. They ignore the question of the ability of the railroads and the various transshipping points to take up the slack during the season of closed navigation. Of course, to maintain the facilities for doing that, while forfeiting to the St. Lawrence route their normal export and import business during the open season of navigation, would be highly uneconomical, if indeed possible.

"The project carries with it some disturbing international problems. In the event of a war, in which either the United States or Great Britain is a combatant, and the other nation is neutral, serious international questions would arise as to the right of United States vessels, or United States cargo, to use the St. Lawrence Seaway.

"Having failed of justification on every point upon which support has been advanced, the project should permanently be abandoned. After approximately half a century of studies, estimates and discussion it warrants no further expenditure of time, money or consideration," the Association's statement concludes.

## Violation of Explosives Rules Is Charged

Secretary W. P. Bartel has disclosed that an information was filed in Kansas City, Mo., April 11 charging the Missouri Pacific with violation of regulations governing the transportation of explosives. This action under section 233 of the Criminal Code was handled for prosecution by the commission's Bureau of Inquiry after an investigation by its Bureau of Service. The specific violations charged were "improper placing of carloads of explosives in through freight trains and the failure to furnish the train and engine crews with the notice, required by the regulations, of the presence of carloads of explosives in these trains."

## Floods Hit Traffic on Seven Mid-West Railroads

Floods, brought about by unusually heavy rains in Kansas and by the aftermath of tornadoes in Oklahoma, have affected freight and passenger traffic on seven important Middle West railroads, according to a statement issued this week by W. F. Kirk, western director, division of rail transport of the Office of Defense Transportation, whose office is in Chicago. The seven roads involved are the Missouri Pacific, the Missouri-Kansas-Texas, the St. Louis-San Francisco, the Chicago, Rock Island & Pacific, the Atchison, Topeka & Santa Fe, the Kansas City Southern, and the Kansas, Oklahoma & Gulf.

While passenger traffic on these roads has been curtailed to a considerable degree, freight has experienced little delay so far,

because of re-routing orders issued by Mr. Kirk, although he declared that with the flood waters proceeding South, there is a possibility of further trouble, within the next few days.

Sections of the roads involved which are under water are as follows:

Missouri Pacific: between Paola, Kan., and Lomax; between Paola and Van Buren, Ark.; and between Crane, Ark., and Batesville.

St. Louis-San Francisco: between Blackwell, Okla., and Beaumont, Kan., and between Davidson, Okla., and Vernon, Tex.

Chicago, Rock Island & Pacific: between McAllister, Okla., and Shawnee.

Atchison, Topeka & Santa Fe: between Elinor, Kan., and Eldorado; between Eldorado and Winfield, Kan.; between Emporia, Kan., and Newton; between Newton and Harper, Kan., and between Pauls Valley, Okla., and Ardmore.

Kansas City Southern: between Stillwell, Okla., and Ft. Smith, Ark.

Kansas, Oklahoma & Gulf: between Durant, Okla., and Muskogee.

## Trans-Missouri-Kansas Board on Pending Legislation

Senator Capper, Republican of Kansas, inserted into the April 16 issue of the Congressional Record, statements he had received from the Trans-Missouri-Kansas Shippers' Board, expressing the board's opposition to pending legislation to create a Missouri Valley Authority and to liberalize the Railroad Retirement and Railroad Unemployment Insurance acts. The board also expressed its opposition to "any and all efforts to make the Interstate Commerce Commission subject to the jurisdiction of the Department of Commerce or any other executive department or agency of the government."

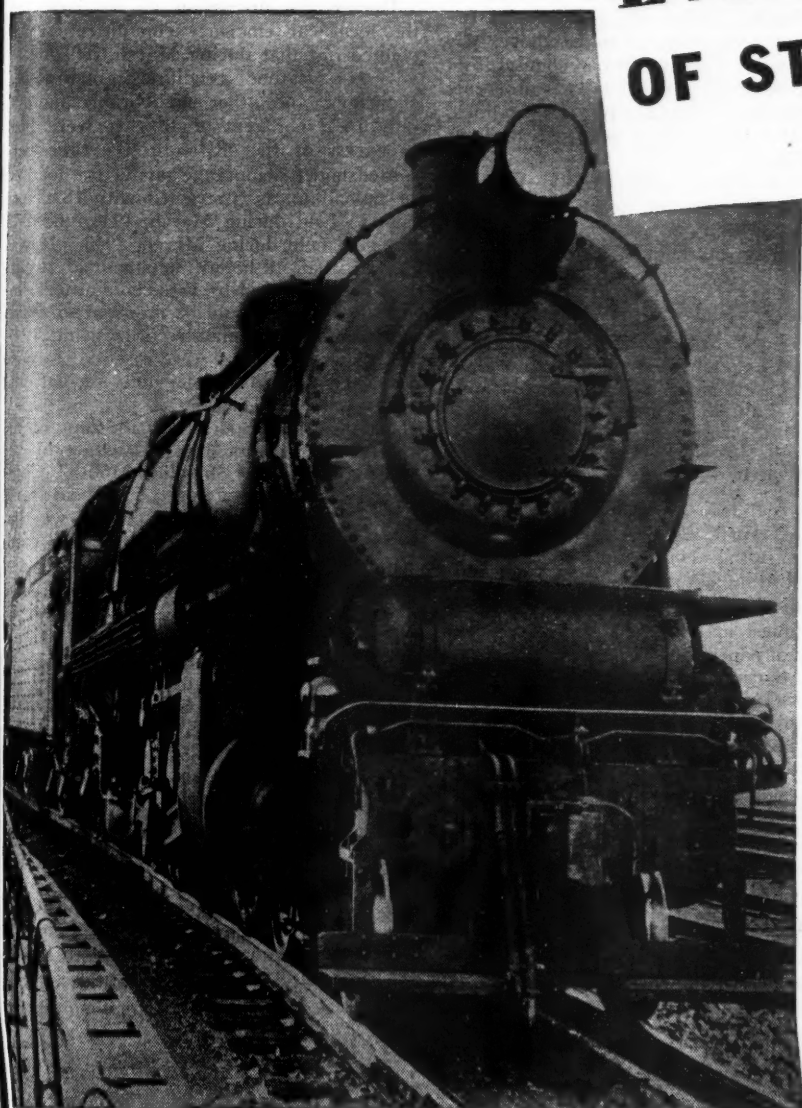
## Eagle Air Lines, Inc., Presents Its Case to the Public

In a 16-page folder, Eagle Air Lines, subsidiary of the Missouri Pacific and the Texas & Pacific, has presented to the public its case for petitioning the Civil Aeronautics Board for authority to operate a 6,000-mile air system with 16 proposed air routes serving 108 cities in the West and Southwest, 88 of which do not now have any commercial air line service.

If the petition is approved, Eagle Airlines, Inc., will be equipped to carry freight, express and mail, as well as passengers, and will provide through and connecting air transport services, coordinating these with the rail and highway services now offered by these two railroads.

Believing that they are entitled to ask for "and that they will receive the strong moral support and active cooperation of the residents of all of the communities they serve," the Missouri Pacific and Texas & Pacific hold that their previous record in the field of surface transportation "warrants the statement that their entrance into air transportation would be in the best interest of the public." They state that "since both are long established transportation agencies, their personnel has become well versed in the varied needs and desires of the traveling and shipping public. Utilization of their forces, particularly re-

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● When you are making every effort to secure maximum efficiency from your steam locomotives, remember the importance of maintaining a *complete* brick arch in the firebox.

For 35 years Security Sectional Arches have been saving fuel on all types of locomotives, and the harder a locomotive is worked the greater the proportionate fuel saving.

The cost of maintaining a complete arch is but a fraction of that of the coal conserved.

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REFRACTORIES CO.**  
*Refractories Specialists*



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*Locomotive Combustion Specialists*



search, administrative, traffic and accounting forces, plus the use of many existing facilities would prevent the necessity for expensive duplications and make for more economical service."

"A frankly admitted effort to retain the patronage of their present shippers and travelers who may, in the post-war period, desire to ship or travel by air," Eagle Air Lines proposed air routes, are, as follows:

(1) St. Louis (Mo.)-Kansas City\* (Mo.-Kans.)-Pueblo (Colo.); (2) St. Louis-Texarkana (Ark.-Tex.)-San Antonio (Tex.)-Laredo (Tex.); (3) New Orleans (La.)-Baton Rouge (La.)-Alexandria (La.)-Shreveport (La.)-Dallas (Tex.)-Ft. Worth (Tex.)-El Paso (Tex.); (4) New Orleans-Baton Rouge-Houston (Tex.)-Brownsville (Tex.); (5) Omaha (Neb.)-Kansas City-Joplin (Mo.)-Ft. Smith (Ark.)-Texarkana-Shreveport; (6) Kansas City-Coffeyville (Kan.)-Ft. Smith (Ark.)-Little Rock (Ark.); (7) Memphis (Tenn.)-Springfield (Mo.)-Nevada (Mo.)-Wichita (Kan.)-Great Bend (Kan.); (8) Jefferson City (Mo.)-Springfield-Joplin (Mo.); (9) Memphis-Little Rock-Hot Springs (Ark.); (10) Poplar Bluff (Mo.)-Memphis-Monroe (La.); (11) Little Rock-Monroe-Lake Charles (La.); (12) Texarkana-Paris (Tex.)-Sherman (Tex.)-Ft. Worth; (13) Palestine (Tex.)-Houston-Galveston (Tex.)-Freeport (Tex.); (14) Ft. Worth-Waco (Tex.)-Houston; (15) San Antonio-Corpus Christi (Tex.); and (16) Monahans (Tex.)-Hobbs (N. Mex.)

## New President Knows Transport Situation

(Continued from page 722)

Expressing his transportation views in a 1944 address before the Traffic Club of Baltimore, Mr. Truman indicated his belief that plans should be made for a post-war transportation system of integrated operation or coordination among the various agencies; but he did not favor what he called "integration of ownership," as proposed in the Transportation Association of America's plan for a limited number of transportation companies, each authorized to develop and furnish all types of facilities.

His opposition to the latter rested on his belief that the proposal "is fundamentally based upon the concept that a permanent level or pattern of transportation has been achieved, and it is now simply a question of organizing its structure and distributing its fruits." To Mr. Truman the plan implied the adoption of the cartel idea which he regarded as unsound.

**How to Coordinate**—He also suggested that restrictions on entry into the transportation field may already be too rigid—that "possibly" the I. C. C. may have gone too far in that direction. His favorable view with respect to "integration of operation or coordination" were set forth in part as follows:

"There are over 750 separate operating railroad corporations in the United States. There has been cooperative action between them in the interchange of equipment and in through rates and through service. Cooperative action is, therefore, proved to be workable without integrated ownership. Such coordination can be extended and improved as to railroads and it can likewise be extended to include coordination between various modes of transport."

Throughout his service in the Senate Mr. Truman enjoyed the support of the Railway Labor Executives' Association. That organization, having remained neutral in the primary, supported him in his first election of 1934. And in 1940, when he had a hard reelection contest on his hands,

R. L. E. A. supported him in both the primary and the general election, the association's member unions sending campaigners into Missouri to aid in his successful fight.

### Opposed Vinson in Wage Case—

In 1943 Mr. Truman was sponsor of the Senate version of the resolution to override former Economic Stabilization Director Fred M. Vinson's disapproval of the eight cents per hour wage increase which the railroads had agreed to give their non-operating employees. The resolution was passed by the Senate but the House failed to act. Thus came the strike threat which brought on War Department operation of the railroads. When he appeared in the 1938 wage proceeding, as noted above, Mr. Truman was asked by railroad counsel if he had not generally favored labor's proposals in Congress. "Not always," he replied, adding that he had been against train-limit legislation.

At his first press conference on April 17, President Truman told questioners that he still favored the creation of a Missouri Valley Authority, but he had nothing to say at this time with respect to the proposed St. Lawrence seaway. In response to other questions he said he favored continuance of war-time conservation measures, such as the ban on horse racing, which had been invoked by former Director James F. Byrnes of the Office of War Mobilization and Reconversion.

### Eksergian Receives Levy Medal

At Medal Day exercises at the Franklin Institute, April 18, Dr. Rupen Eksergian, chief consulting engineer of the Edward G. Budd Manufacturing Company, received the Louis Edward Levy gold medal which was founded in 1923 to be awarded to the authors of papers of especial merit published in the Journal of the Franklin Institute. Dr. Eksergian's paper, entitled "On the Reaction of Fluids and Fluid Jets," appeared in the May, 1944, issue of the Journal. It includes a discussion of rocket propulsion and jet drive for airplanes, together with some phases of the reaction of jets.

### Shippers Support Railroads on Land Grants and Pensions

The board of directors of the National Association of Shippers Advisory Boards, meeting on April 17 in St. Louis, Mo., reaffirmed its support of bills now before Congress which would repeal the "land grant" rate deductions. The board also announced its opposition to the various bills now in Congress which seek to liberalize present railroad retirement and unemployment benefits. The principle of rate-making by the "conference method" also received the endorsement of the board, although it declined to support in their present form any of the measures so far introduced at this session of Congress to remove all question as to the legality of this method of rate-making.

As a result of its discussion of the railroad man-power situation during which it was agreed that many of the transportation difficulties now being encountered were the result of deficiencies in man-power, the

secretary was directed to transmit the following resolution to Col. J. Monroe Johnson, director of the Office of Defense Transportation:

"In the interest of relieving so far as possible the present serious car shortage, it is the consensus of opinion of the board of directors of the National Association of Shippers Advisory Boards, meeting at St. Louis, Mo., Tuesday, April 17, that, if experienced railroad operating men now in the armed forces could be released for general railroad work an important step forward would be taken toward improving the railroad transportation efficiency of the country."

During the discussion of the work of the local car efficiency committee it was pointed out that during March, in spite of adverse weather conditions, man-power shortages, and other unfavorable factors, only 16.13 per cent of all cars were held in excess of the 48 hours free time permitted under demurrage tariffs for loading or unloading, as contracted with 18.02 per cent so held during March, 1944, and 27.5 per cent held during March, 1943. It was agreed that, although outstanding results had been achieved by these committees, increased efforts would be required to maintain and improve that record during 1945, but that such efforts were essential to cope with the prospective demands of national transportation service.

A considerable portion of the time of the meeting was devoted to discussion of the national "Perfect Shipping Month" Campaign now in progress. The board expressed its belief that in spite of wartime demands on shipping men, the 1945 campaign was receiving excellent response and would be the most successful ever held. Plans were advanced for continuation of "perfect shipping" activities by the regional boards throughout the year, although it was stated that the annual April campaign would be continued on a more intensive basis.

The directors also adopted a plan for interregional cooperation in making analyses of shipping failures in order to uncover defective shipping practices on shipments moving between regions and thus to permit corrective action.

During the meeting there was consideration of the handling of I.C.I. freight by the carriers. Following the discussion, it was decided that the members would actively cooperate with the carriers in their efforts to improve I.C.I. service.

The meeting was attended by representatives of eleven of the thirteen regional shippers advisory boards. Robert S. Henry, assistant to the president of the Association of American Railroads, and H. E. Stringer, Assistant to the Chairman, Car Service Division, A. A. R., were also present.

### March Employment 1.59 Per Cent Above Previous Year

Railroad employment increased 0.65 per cent—from 1,412,890 to 1,422,041—during the one-month period from mid-February to mid-March, and the March total was 1.59 per cent above that of March, 1944, according to the preliminary summary based on reports from Class I line haul

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MISS AMERICA

*The most successful technique  
in the attainment of the engineer's  
highest achievements has proved  
to be progressive refinement of  
perfectly coordinated units. ~ ~*

## COORDINATED for Higher Locomotive Efficiency

**BALANCED BOILERS**  
Ample grate and combustion areas  
and maximum evaporating surface  
within specified limits

**SUPERHEATER DESIGN**  
To provide the greatest flue evaporating  
and superheating surfaces, with maximum  
free steam area for lowest pressure drop

**WASTE-HEAT RECLAMATION**  
With Elesco Exhaust Steam Injectors  
for the highest heat recovery per  
unit of weight and cost



### The SUPERHEATER Company

Representative of American Throttle Co., Inc.

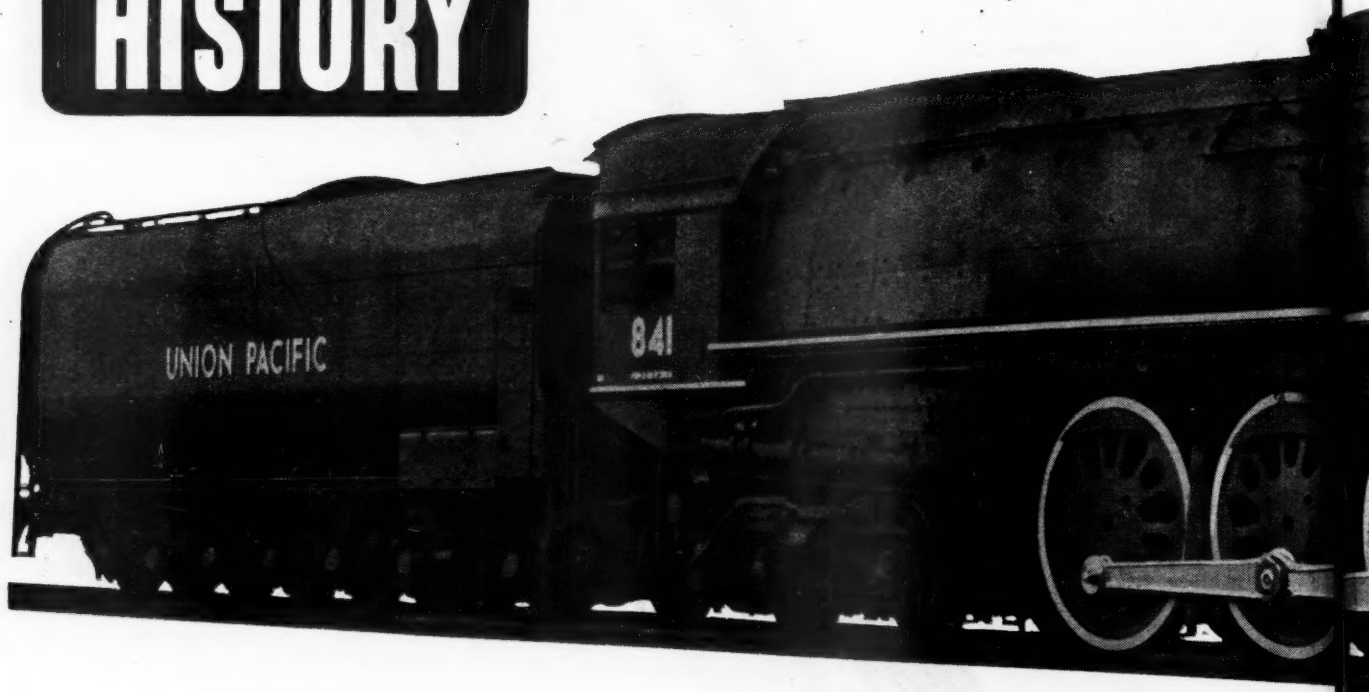
NEW YORK • CHICAGO • MONTREAL

Superheaters • Feedwater Heaters • Exhaust Steam Injectors • Pyrometers • Dryers • Throttles

# LOCOMOTIVES

# THAT ARE MAKING

# HISTORY



**T**EN of the powerful, high-speed 4-8-4's have just been delivered by American Locomotive to the Union Pacific.

Forty-five of these locomotives are now operating on fast passenger schedules, pulling 16 to 22 car trains to their destinations, on time.

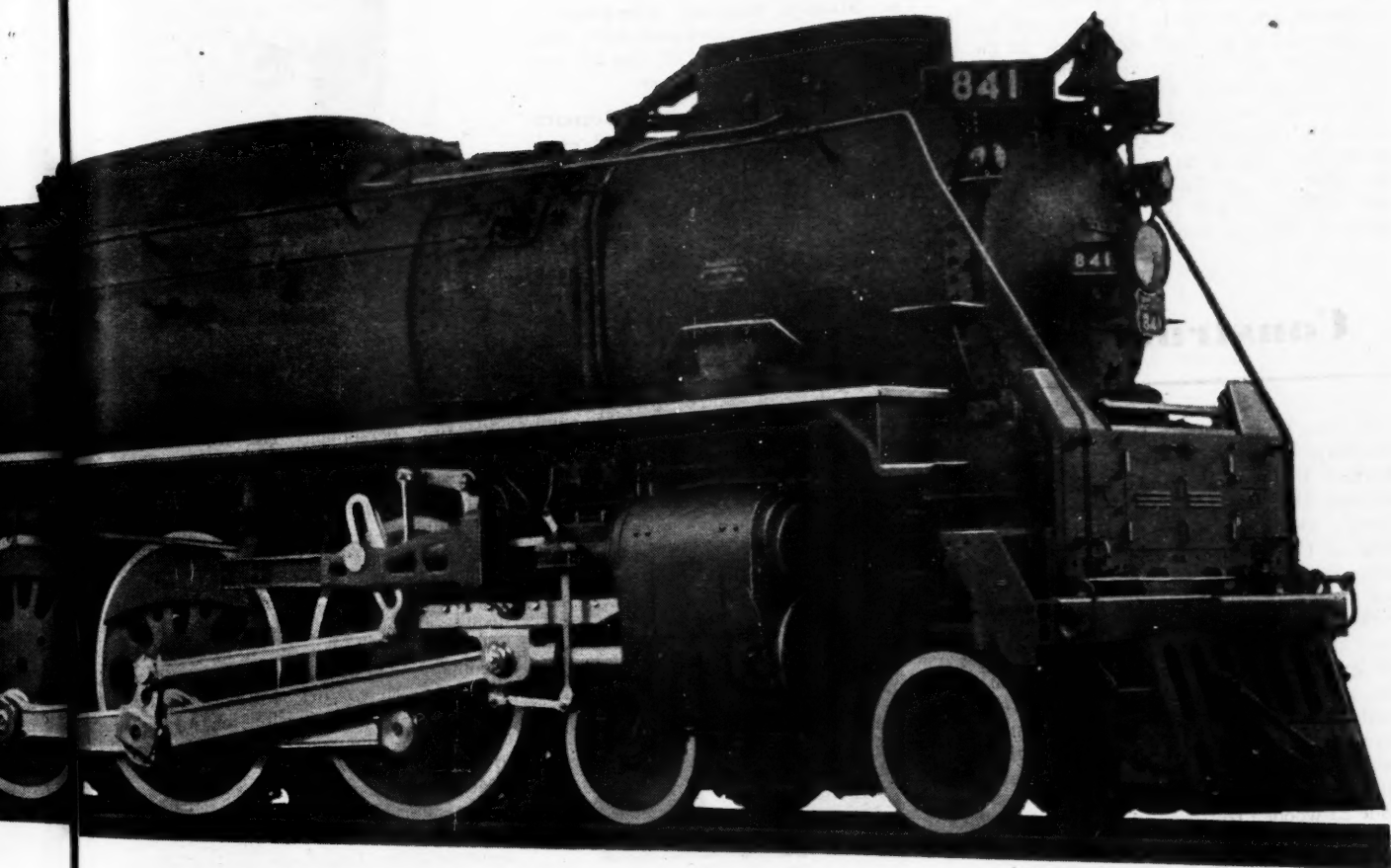
The first of these 4-8-4's was delivered in 1937. Since that time, these passenger locomotives have, through their successful operation, become part of Union Pacific's locomotive backbone.

#### Here are the "SPECS":

Weight on Drivers . . . . .	270,300 lbs.
Weight of Engine . . . . .	490,700 lbs.
Cylinders . . . . .	25 x 32 ins.
Diameter of Drivers . . . . .	80 ins.
Boiler Pressure . . . . .	300 lbs.
Tractive Power . . . . .	63,800 lbs.
Capacity (Water) . . . . .	23,500 gals.
Capacity (Fuel) . . . . .	25 tons

**Locomotive designs developed by American Locomotive Company have been, are, and will continue to be powerful factors in American railroad operating efficiency and economy.**





● **Unsurpassed for the Job because Built for the Job**



**American  
Locomotive**

NEW YORK

roads and prepared by the Bureau of Transport Economics and Statistics of the Interstate Commerce Commission. The index number, based on the 1935-1939 average, was 142.9, as compared with 141.9 for the previous month and 140.6 for March, 1944.

March, 1945, employment was above that of the corresponding 1944 month in all groups except train and engine service, in which the decrease was 0.13 per cent. In other categories the range of increases was from 0.31 per cent for maintenance of equipment and stores to 4.52 per cent for maintenance of way and structures. In the comparison with the previous month, the only decrease noted was that of 0.07 per cent in the executives, officials and staff assistants classification. In the other categories the range of increases was from 0.02 per cent for yardmasters, switchtenders and hostlers to 1.99 per cent for maintenance of way and structures.

## Construction

**FLORIDA EAST COAST.**—Division 4 of the Interstate Commerce Commission has authorized this road to build a line from milepost 152.5 on its so-called Okeechobee branch, which is a point about 14.6 miles south of Okeechobee, Fla., to Fort Pierce, 29.5 miles, and thus to connect the south end of the branch with its main line at Fort Pierce. Heretofore perishable traffic from the south end has had to move the full length of the branch to reach the main line, and improved service and more economical operation are expected to result from construction of the cut-off. The single-track line will be rock ballasted and laid with second-hand 90-lb. rail. It will include 23 wooden trestles with a total length of 1,656 ft. Construction work, to cost about \$1,150,000, is to be completed by December 31, 1946.

**MISSOURI PACIFIC.**—As part of its recently organized plan of expansion and improvement, this road has ordered the following construction projects started: Installation of lap sidings, a coaling station and water station at Comiskey, Kan., at a cost of \$206,500; construction of 80-car lap sidings, a 100-ton mechanical coaling station and two cinder pits at Selkirk, Kan., at a cost of \$83,000; construction of engine house improvements at Dupu, Ill., at a cost of \$240,000; construction of 30,300 ft. of track to serve a coal mine at Johnston City, Ill., at a cost of \$214,000; adjustment of length and location of sidings and the installation of automatic block signals between Van Buren, Ark., and North Little Rock, at a cost of \$495,200.

**UNION PACIFIC.**—This road has started construction of three new tracks, aggregating 9,200-ft. at Council Bluffs, Iowa. The new tracks will be used for holding bad order cars until they can be switched to repair tracks, thereby preventing congestion in the yards.

## Supply Trade

The **Electric Storage Battery Company** has been awarded a fifth star to add to its Army-Navy "E" flag.

A third renewal of its Army-Navy "E" award has been granted to the Alliance, Ohio, gun mount plant of the **Babcock & Wilcox Co.**

The **Maxim Silencer Company** of Hartford, Conn., has been awarded a third star for its Army-Navy "E" flag for continued production achievement.

The **United States Plywood Corporation** has moved its executive offices in New York to 55 West 44th street.

**Frank J. Swanson** has been appointed sales and service engineer of the railway supply division of the **Reynolds Metals Company**, Richmond, Va. His headquarters will be in Chicago. For the past three years, Mr. Swanson has served in the mechanical division of the Office of Defense Transportation, Division of Railway Transport. He began his railroad career with



Frank J. Swanson

the Chicago, Milwaukee, St. Paul & Pacific in 1905, working in the car department at Chicago, Milwaukee, Wis., and Minneapolis, Minn., and in various clerical positions. He served his apprenticeship as carman and subsequently was advanced to assistant car foreman, car foreman, general car foreman, assistant shop superintendent and general car department supervisor. He left the Milwaukee to join the mechanical section of the O. D. T. in June, 1942.

As reported in the *Railway Age* of April 7, **Ernest Murphy**, vice-president in charge of operations, has been elected president of the **Pressed Steel Car Company** to succeed **John F. MacEnulty**, who becomes vice-chairman of the board of directors. The sales department will continue under the direct jurisdiction of Mr. MacEnulty.

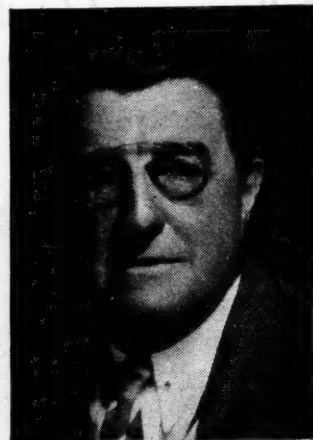
Mr. Murphy was born in Padiham, England, and received his early education and training in that country. He came to this country in 1909 and worked on type M control electrical difficulties on the Chicago elevated lines. Later in the same year

he went to Pittsburgh, Pa., where he worked for the Butler, Pittsburgh, Harmony & New Castle Interurban Traction Co. as division engineer in charge of construction. After the construction assignment was finished, he was appointed in



Ernest Murphy

charge of operation and the training of operating personnel. He went to New York with the Interborough Rapid Transit Company in 1911, where he was in charge of the extensions of the subway, the design and building of rolling stock, and of the construction of the shops and the equipment of the trains. He assisted in the development of the electrical coupler, the installation of electrical brakes on all trains, and the development of the electrical synchronizing of all train air compressors. With the New York Railway Company, he had direct supervision of all rolling stock and maintenance plants. From 1917 to 1940 he was associated with the United Traction Company at Albany, N. Y., starting as superintendent of equipment and advancing successively to the positions of assistant general manager, general manager and vice-president. At the same time, he also was president of the Capital District Transportation Company in Albany. Since



John F. MacEnulty

March, 1941, Mr. Murphy has been located with the Pressed Steel Car Company, at the Hegewisch plant, Chicago, in charge of the Armored Tank division.

John Forest MacEnulty received his early



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education in Pittsburgh, Pa. He began his career in the bureau of inspection of the Carnegie Steel Company, Pittsburgh, in 1892 and entered the employ of the Pittsburgh Testing Laboratories in 1895. He joined the Pressed Steel Car Company at its Allegheny plant in February, 1899, becoming a member of the inspection force. He later was appointed chief inspector and then engineer in charge of construction. He was transferred to New York in 1904 as sales representative, and, in 1907, to Chicago as general superintendent of the Hegewisch plant of the Western Steel Car & Foundry Co., a subsidiary. He was promoted to general manager in 1909. He was returned to New York in 1912 as general sales manager of the Pressed Steel Car Company and the Western Steel Car & Foundry Co., and in 1916 was appointed vice-president in charge of sales, which position he held until December, 1937, when he was elected president of Pressed Steel.

**M. D. Bensley** has been appointed district representative in the St. Louis-Kansas City, Mo., territory with headquarters in St. Louis, for the **Malabar Machine Company** of Los Angeles, Calif. Mr. Bensley formerly was general manager of the Mount Vernon Car Manufacturing Company.

**Walter I. Floyd**, formerly executive vice-president, has been elected president of the **Duff-Norton Manufacturing**



**Walter I. Floyd**

**Company** to succeed **Robert G. Allen**, who has resigned. **E. M. Webb** has been elected vice-president and general manager.

**Sam Laud**, executive assistant to the president, has been elected president of the **General American Transportation Corporation** to succeed **Lester N. Selig**, who has been elected to the newly-created position of vice-chairman of the board. **Max Epstein** is chairman of the board. **W. S. Hefferan, Jr.**, formerly secretary of the company, and **Arthur W. Lissauer**, general manager of the process equipment division, have been elected vice-president; **Maurice J. Feldman** has been elected secretary and **Frank E. Selz** has been appointed assistant to the president.

Mr. Laud joined General American in 1916 and held the positions of plant auditor, plant manager, comptroller and, since 1931,

executive assistant to the president. Mr. Selig joined General American's Warren, Ohio, plant in 1915 and later was transferred to the main manufacturing plant at East Chicago. He was promoted to



**Sam Laud**

assistant to the president in 1919 and elected president in 1931. Mr. Hefferan was engaged in the general practice of law from 1916 to 1930. He was appointed assistant secretary and assistant general counsel of the company in 1930 and elected secretary in 1931. He was appointed general counsel in 1940, which position he now holds. Mr. Lissauer was graduated from Columbia University in 1909 and since has been active in various engineering and chemical enterprises. He is president of the Louisville Drying Machinery Company, which was acquired by General American in 1943. Mr. Feldman has been with General American since 1918. He is general manager of the tax and insurance department and was assistant secretary until his present promotion. Mr. Selz has been associated with the company for 14 years



**Lester N. Selig**

serving in various positions, chiefly with the tank car division.

At the annual meeting of the **American Locomotive Company** in New York on April 17, **William C. Dickerman**, chairman of the board, estimated the company's earnings for the first quarter of 1945, after allowance for taxes and renegotiations, at \$1,300,000. Earnings for the first quarter of last year, after renegotiation and taxes,

were \$1,295,000. Unfilled orders on the books of the company, Mr. Dickerman said, are approximately \$245,000,000, and if verbal orders are included, the company's present backlog is approximately what it was a year ago. About 54 per cent of unfilled orders are for regular products of the company and the balance for specialized war products, chiefly tanks.

Mr. Dickerman said that the company expects a substantial volume of business during the balance of the year for delivery in 1946. All plants are currently working at capacity, and are expected to continue so for the rest of the year. "Sudden termination of the war would undoubtedly result in some 'cut-backs,'" Mr. Dickerman said, "but their effect on the company would not, we believe, be serious, especially since a decrease in production of specialized war production would permit an increase in the production of steam and Diesel locomotives for foreign and domestic railroads." American Locomotive expects a substantial post-war business in the design and manufacture of both coal-burning and oil-burning locomotives.

**Frederick H. Norton** has been appointed assistant vice-president in the **American Car & Foundry Co.'s** sales department with headquarters in New York. Mr. Norton formerly was associated with the American Steel Foundries as sales engineer assigned to mid-western railroads and in May, 1940, he was ap-



**F. H. Norton**

pointed war production engineer and assigned to Washington, D. C., to handle all of that company's activities with the government and foreign agencies. His new appointment with the American Car & Foundry Co. and his prior career were reported in the *Railway Age* of April 7.

**Kenneth E. Clarke**, who recently resigned as vice-president of the **Charles R. Long Company**, Louisville, Ky., has been appointed vice-president of the **Ferbort-Schorndorfer Company**, with headquarters at Cleveland, Ohio. The latter firm is a subsidiary of the **American-Marietta Company**, Chicago.

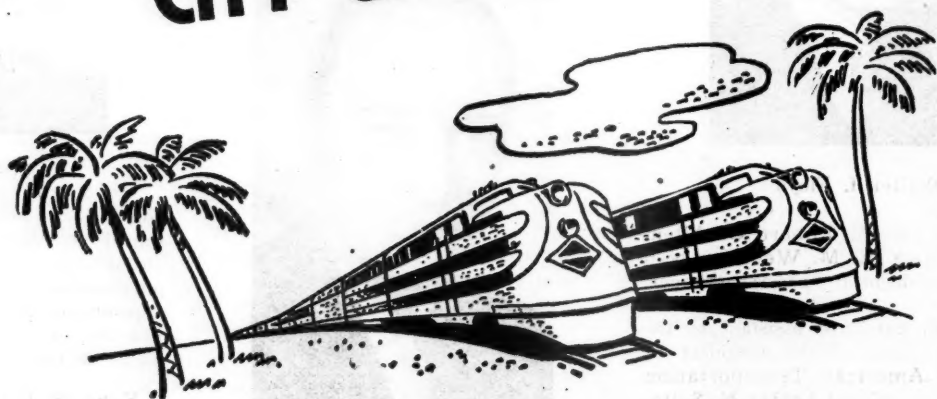
## OBITUARY

**Charles F. Krauss**, assistant chief engineer of the locomotive and ordnance division of the **Baldwin Locomotive Works**,



IT'S A GREAT NEW DAY FOR RAILROADING

**100%**  
**AVAILABILITY**  
on the  
**PANAMA LIMITED**  
and  
**CITY OF MIAMI**



**GENERAL MOTORS**  
**LOCO MOTIVES**

IT'S A GREAT NEW DAY FOR RAILROADING

During May, June  
and July last year,  
three General Motors  
Diesel locomotives  
operated at 100% availability  
over 237,144 miles on these  
two crack trains of the  
Illinois Central.

Remarkable?  
Yes, but not unusual  
for GM Diesels.

ON TO FINAL VICTORY ★ BUY MORE WAR BONDS

**ELECTRO-MOTIVE DIVISION**  
**GENERAL MOTORS CORPORATION** **LA GRANGE, ILL.**

who was in charge of new development work on locomotives, died April 6. Mr. Krauss had been associated with Baldwin for 40 years, starting in the engineering department. He attended the Drexel Institute of Technology and was a member of the technical committee of the Locomotive Institute and of several committees of the Association of American Railroads.

## Equipment and Supplies

### LOCOMOTIVES

The LONG ISLAND has ordered six 600-hp. Diesel-electric switching locomotives from the Electro-Motive division of the General Motors Corporation.

The PENNSYLVANIA has ordered three 600-hp. and two 1,000-hp. Diesel-electric switching locomotives from the Electro-Motive division of the General Motors Corporation.

### FREIGHT CARS

The CONSOLIDATED RAILROADS OF CUBA have placed an order for 250 40½-ft. steel box cars of 50 tons' capacity with the Mount Vernon Car Manufacturing Company.

## Financial

**ALTON.—Promissory Notes.**—Division 4 of the Interstate Commerce Commission has authorized this road to issue \$838,128 of promissory notes in further evidence, but not in payment, of the unpaid portion of the cost of 3 4,000-hp. Diesel-electric passenger locomotives purchased from the Electro-Motive Division of General Motors Corporation. The bid of the American National Bank & Trust Company to finance the purchase over a 5-year period at 1½ per cent per annum interest was accepted by the trustee.

**BALTIMORE & OHIO.**—*Detroit-Toledo Trackage Rights.*—The Pere Marquette has been authorized by Division 4 of the Interstate Commerce Commission to intervene in the Finance Docket 14891 proceedings in which the application of the Baltimore & Ohio to operate under trackage rights on a line of the New York Central from Toledo, Ohio, to Detroit, Mich., is under consideration. The B. & O. has had a joint agreement with the Pere Marquette for operation between these points, but has served notice that it does not contemplate its extension beyond the June 7 expiration date, as the proposed arrangement with the New York Central is considered by it to be more advantageous. The Pere Marquette has advised the commission that it expects to oppose the B. & O. application "unless that company enters into an

undertaking to satisfy all lawful claims of all employees affected by its proposed change of its operations."

Under the agreement with the Pere Marquette, that road has provided locomotives and train and engine crews for the movement of B. & O. trains between the two cities (except that B. & O. dining cars were employed), and it challenged the statement in the B. & O. application that it would not be necessary to prescribe conditions for the protection of employees adversely affected as the proposed arrangement would constitute an extension of operations.

The Pere Marquette also objected to the implication in the B. & O. application (the provisions of which were reported in *Railway Age* of April 14, page 686) that its line from Toledo to Detroit is single track; it is all double track, the commission was informed, except two short wye tracks used at junction points. The Fort Street Union Station in Detroit, it said further, is used by other roads (the Pennsylvania and Wabash), contrary to the statement in the B. & O. application. The description of trains operated between the two points also was objected to, it being the Pere Marquette view that a mail and express train is operated in each direction, not southbound only, six days per week, in addition to the passenger train operations.

**CENTRAL OF GEORGIA.**—*New Director.*—Wayne A. Johnston, president of the Illinois Central System, has been elected a director of the Central of Georgia to succeed the late J. L. Beven.

**CHICAGO & EASTERN ILLINOIS.**—*Annual Report.*—The 1944 annual report of this road shows a net income, after interest and other charges, of \$1,463,571 as compared with a net income of \$1,846,422 in 1943. Selected items from the income statement follow:

	1944	Increase or Decrease Compared With 1943
Average Mileage Operated	911.93	.....
RAILWAY OPERATING REVENUES	\$34,109,588	+\$1,474,331
Maintenance of way and structures	4,210,594	+532,024
Maintenance of equipment	5,341,883	+621,825
Transportation—rail line	12,124,450	+1,389,374
TOTAL OPERATING EXPENSES	23,848,211	+2,723,318
Operating ratio	69.92	+5.19
NET REVENUE FROM OPERATIONS	10,261,377	-1,248,987
Railway tax accruals	4,399,831	-803,369
Equipment rents—Net Dr.	2,256,751	-24,430
Joint facility rents—Net Dr.	674,553	+45,837
NET RAILWAY OPERATING INCOME	2,930,241	-467,024
Other income	303,481	+50,597
TOTAL INCOME	3,233,722	-416,428
Rent for leased roads and equipment	199,399	+1,598
Interest on funded debt	429,799	-28,097
TOTAL FIXED CHARGES	631,991	-24,246
NET INCOME	1,463,571	-382,851

**CHICAGO, MILWAUKEE, ST. PAUL & PACIFIC.**—*Equipment Trust Certificates.*—Di-

vision 4 of the Interstate Commerce Commission has authorized this road to assume liability for \$2,100,000 of series Y equipment trust certificates in connection with the acquisition of 1,000 50-ton box cars to be built in company shops at a cost of \$2,800 each. The certificates have been sold to the Harris Trust & Savings Bank at 100.12512, with a 1¼ per cent dividend rate.

**CHICAGO & NORTH WESTERN.**—*Equipment Trust Certificates.*—This road has applied to the Interstate Commerce Commission for authority to issue \$6,180,000 of equipment trust certificates, dated July 1, 1945, to finance 75 per cent of the estimated \$8,270,000 cost of the following equipment: 1,250 70-ton hopper cars, 750 70-ton gondola cars, and 20 streamlined coaches. The certificates will mature in equal annual installments and the interest rate will be determined from competitive bids, such bids having been invited on the basis of 10- and 15-year terms, or both.

**CHICAGO & NORTH WESTERN.**—*Refinancing.*—Division 4 of the Interstate Commerce Commission has authorized this company to issue \$54,000,000 of series B first mortgage bonds, due in 1989, and to use the proceeds and other funds to redeem \$47,979,442 of series A first and general mortgage 4 per cent bonds, due in 1989, \$3,904,000 of Sioux City & Pacific divisional first mortgage 4 per cent bonds, due in 1969, and \$2,481,000 of Des Plaines Valley divisional first mortgage 4 per cent bonds, due in 1969. The new issue was sold to Kuhn, Loeb & Company and others at 99.31, the annual cost to the road being 3.03 per cent. Additional funds required to complete the transaction will be provided from the company's treasury. The net reduction in interest charges resulting from the refinancing will be about \$22,946,418. Since June 1, 1944, the division noted, this company, through retirements completed or authorized, has reduced its fixed-interest debt by \$29,616,474.

**DELAWARE & HUDSON.**—*Albany & Susquehanna Merger.*—The Albany & Susquehanna, lessor, the Delaware & Hudson Railroad Corporation, and the Delaware & Hudson Company, a holding company, have jointly applied to the Interstate Commerce Commission for authority to merge the first-named road into the second, with the holding company acquiring control through its control of the corporation. To accomplish the transaction, the holding company will issue 27,914 shares of stock, while the Albany & Susquehanna will issue \$4,187,100 of general mortgage bonds and \$2,791,400 of subordinate bonds, with the D. & H. organization assuming liability therefor. The holding company now owns 7,086 shares of A. & S. stock, which will be cancelled if the merger is consummated. For each of the 27,914 shares of A. & S. stock outstanding in the hands of the public, the D. & H. will offer in exchange one share of D. & H. stock and \$150 principal amount of A. & S. general mortgage bonds. The A. & S. has been leased to the holding company, which in turn assigned the lease to the corporation, which operates the line.



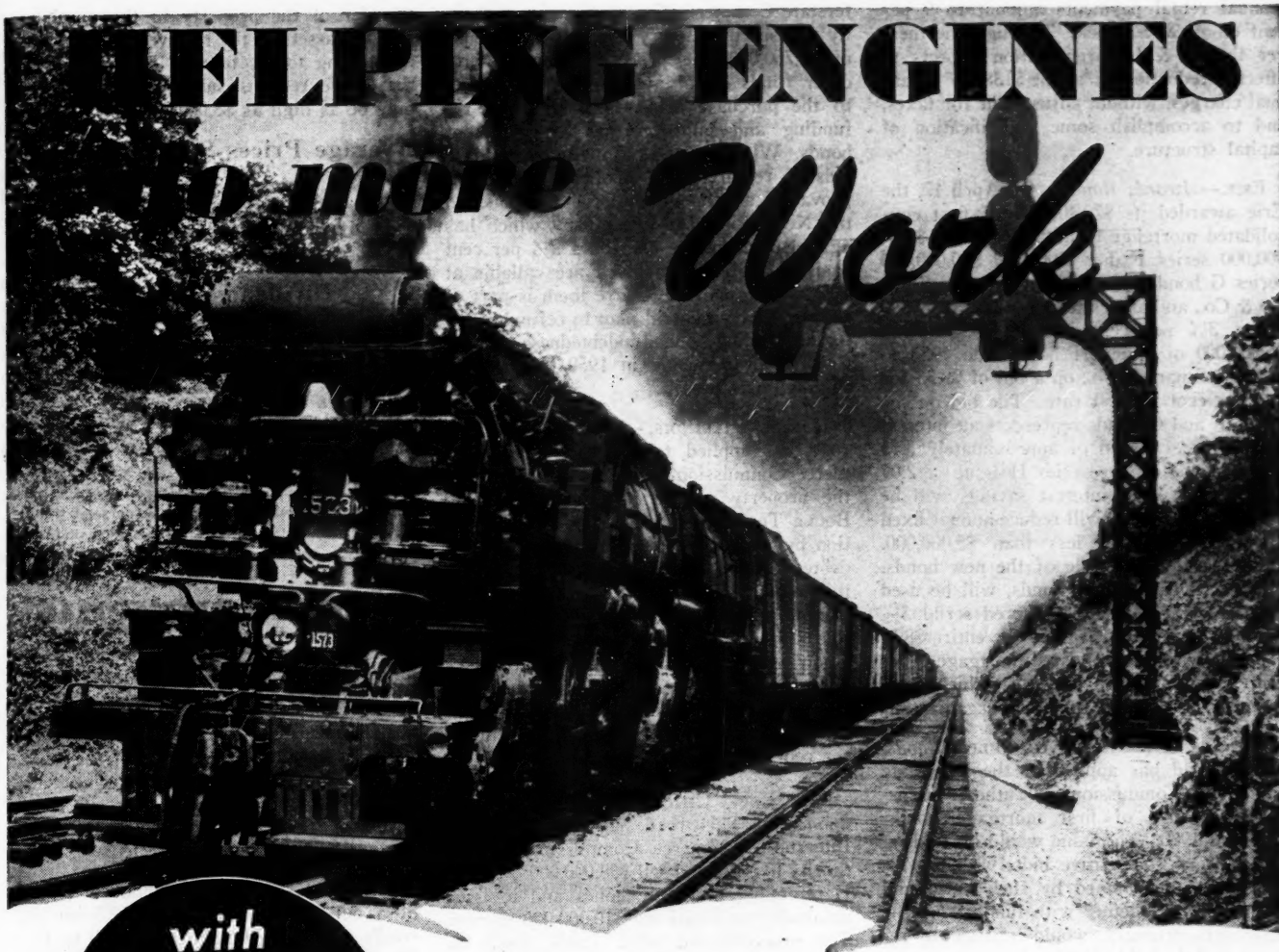
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**HSGI**  
WEAR  
RESISTING  
PARTS

THE high monthly mileage which this locomotive has consistently delivered is due in large measure to its bushings and other vital parts of HUNT-SPILLER *Air Furnace* GUN IRON. Every one of the HSGI components listed below is a money saver and efficiency increaser. Missing any of them?

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Dunbar Sectional Type Packing  
Duplex Sectional Type Packing  
for Cylinders and Valves  
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*Air Furnace* **HUNT-SPILLER  
GUN IRON**

Annual rental payments amount to 9 per cent on A. & S. stock. Through the merger the D. & H. organization expects to effect a reduction of about \$138,917 in annual charges, without adjustment for taxes, and to accomplish some simplification of capital structure.

**ERIE.—Awards Bonds.**—On April 17, the Erie awarded its \$79,400,000 of first consolidated mortgage bonds as follows: \$33,900,000 series F due 1990 and \$40,000,000 series G bonds due 2000 to Morgan, Stanley & Co., and associates, on a bid of 99.389 for a 3½ per cent interest coupon and \$5,500,000 of series H bonds due 1953 to Halsey, Stuart & Co., on a bid of 99.33 for a 2 per cent interest rate. The bid on the series F and G bonds represents an interest cost to the railroad of approximately 3.15 per cent and on the series H issue of 2.09 per cent. Annual interest savings will be about \$721,000, and will reduce annual fixed interest charges to less than \$5,000,000. Proceeds from the sale of the new bonds, together with treasury funds, will be used to redeem \$5,500,000 of secured serial 3½ per cent notes due 1953 and the entire \$87,185,500 of first consolidated mortgage 4 per cent series B bonds due 1995, which were issued in 1941 at the time of reorganization.

**KANSAS, OKLAHOMA & GULF.—Bonds.**—This road has applied to the Interstate Commerce Commission for authority to issue \$4,400,000 of first mortgage bonds, series of 1980. The issue would be sold on the basis of competitive bids, with the interest rate determined by such bids; and the proceeds, together with funds from the applicant's treasury, would be used to redeem on July 1, \$4,450,000 of first mortgage five per cent gold bonds, series of 1978.

**LEHIGH VALLEY.—Annual Report.**—The annual report of this road shows a net income, after interest and other charges, of \$772,120, as compared with a net income of \$6,633,008 in 1943. Selected items from the income statement follow:

	1944	Increase or Decrease Compared With 1943
Average Mileage Operated	1,260	—23
RAILWAY OPERATING REVENUES	\$97,465,274	+\$6,440,400
Maintenance of way and structures	14,165,478	+3,392,822
Maintenance of equipment	16,014,578	+1,249,531
Transportation	36,598,300	+4,757,004
TOTAL OPERATING EXPENSES	70,873,270	+9,711,969
NET REVENUE FROM OPERATIONS	26,592,005	—3,271,570
Railway tax accruals	13,486,227	+1,813,047
Equipment rents—Net	5,228,664	550,334
Joint facility rents—Net	48,822	14,447
NET RAILWAY OPERATING INCOME	7,828,292	—5,649,397
Total other income	854,643	—36,920
TOTAL INCOME	8,682,934	—5,686,318
Rent for leased roads	2,784,628	+200,233
Interest on funded debt	4,248,266	—12,446
TOTAL DEDUCTIONS FROM GROSS INCOME	7,910,815	+174,571
NET INCOME	772,120	—5,860,889

**KANSAS CITY SOUTHERN.—Promissory Notes.**—This road has applied to the In-

terstate Commerce Commission for authority to issue promissory notes in the amount of \$7,700,000, the proceeds together with other funds of the applicant to be applied to the purchase of \$14,000,000 of its refunding and improvement five per cent bonds. While it agrees to invite competitive bids if required, the applicant seeks approval of a proposal to issue the notes to the New York Trust Company which has agreed to make the loan on a 2½ per cent basis. The bonds involved are callable at 105 and the plan to acquire them is part of the applicant's general plan to refund all of its outstanding bonded indebtedness of \$64,000,000, all maturing in 1950, "as rapidly as conditions permit."

**MISSOURI-ILLINOIS.—Acquisition.**—This road has applied to the Interstate Commerce Commission for authority to acquire the property of the Mississippi River & Bonne Terre, in consideration of cancellation by it of all outstanding unsecured indebtedness on account of advances made in the amount of \$253,242. The Bonne Terre is now operated under lease by the Missouri-Illinois, which owns its capital stock. Upon completion of the proposed transaction, the subsidiary company will be liquidated. The Missouri Pacific controls the Missouri-Illinois through ownership of 51 per cent of its stock.

**NEW YORK, CHICAGO & ST. LOUIS.—Re-financing.**—This road has applied to the Interstate Commerce Commission for authority to issue and sell \$58,000,000 of series E refunding mortgage bonds and to issue nominally an additional \$10,000,000 thereof. The proceeds and other funds would be used to retire \$59,875,000 of series C 4½ per cent refunding mortgage gold bonds outstanding, and the \$10,000,000 of that issue in the road's treasury would be replaced. The interest rate on the new issue will be determined by competitive bidding; it is expected to be about 3¼ per cent. (Previous item in *Railway Age* of April 14, page 689.)

**SEABOARD AIR LINE.—R. F. C. Sells Securities.**—The Reconstruction Finance Corporation has sold to Halsey, Stuart & Company \$3,840,000 of this road's series II 3 per cent equipment trust certificates at 103.5, which price represents a premium to the seller of \$134,400.

**SEABOARD AIR LINE.—Upset Price Set.**—On April 12, an "upset" price of \$70,000,000 was set for the property of the Seaboard Air Line, which is to be sold at a foreclosure sale on May 31, from a railroad station platform at Portsmouth, Va. The price was set in connection with reorganization proceedings by Judges W. Calvin Chestnut, Baltimore, Md., and Alexander Ackerman, of the Southern District of Florida, sitting as the federal court of the eastern district of Virginia. In a memorandum filed with the clerk of the court, the judges stated that since the entire property is to be sold, subject to certain equipment trust liens and underlying mortgages amounting to \$18,000,000, the precise "upset" price actually will be \$52,000,000. The memo also stated that the net income from operations by the receivers pending the final settlement and

transfer of the property to the purchaser shall be assets of the receivership and shall not belong to the buyer. The judges said that these receipts subsequent to the sale may be as high as \$5,000,000.

## Average Prices Stocks & Bonds

	April 17	Last week	Last year
Average price of 20 representative railway stocks	52.60	50.43	38.83
Average price of 20 representative railway bonds	96.92	96.34	87.24

## Dividends Declared

Georgia RR. & Banking.—\$1.75, quarterly, payable April 15 and July 15 to holders of record April 1 and July 1 respectively.  
Goshen & Deckertown.—40¢, annually, payable April 20 to holders of record April 10.  
Ontario & Quebec.—\$3.00, semi-annually, payable June 1 to holders of record May 1.  
Pittsburgh, Bessemer & Lake Erie.—75¢, semi-annually, payable October 1 to holders of record September 15.  
Wheeling & Lake Erie.—5¼% conv. preferred, \$1.37½, quarterly; 4% prior lien, \$1.00, quarterly, both payable May 1 to holders of record April 21.

## Abandonments

**ATCHISON, TOPEKA & SANTA FE.**—On further consideration of this road's line abandonment authorized in Finance Docket 13773 proceedings, Division 4 of the Interstate Commerce Commission has extended for a further period of two years its reservation of jurisdiction for the protection of any employees adversely affected.

**FLORIDA EAST COAST.**—Upon completion of a cut-off from milepost 152.5 on this road's so-called Okeechobee branch to Fort Pierce, Fla., on its main line, it has been authorized by Division 4 of the Interstate Commerce Commission to abandon a 136.1-mile segment of that branch, extending north from milepost 152.5 to Maytown. Little traffic has been produced recently by the segment to be abandoned, but traffic to and from the south end of the branch, along Lake Okeechobee, consisting mainly of perishables and sugar cane, is expected to produce annual revenues in excess of \$2,600,000 by 1949. A substantial part of this traffic has been moved over the segment to be abandoned in order to reach the road's main line, but better service and more economical operation are expected to result from use of the new cut-off which will make this main-line connection at Fort Pierce instead. If this arrangement had been in effect in 1943, it was stated, the road's profit would have been increased \$203,552 in that year. The capital saving through building the cut-off, as compared with rehabilitating the entire branch substantially to main-line standards, was estimated as \$900,000.

The division found that, while some inconvenience to shippers might result from the abandonment, continued operation of the segment would impose an unnecessary burden on the road. The chief protest was from the town of Okeechobee, which is served by the main line of the Seaboard Air Line. That road, the division found, "has handled most of the traffic therefrom in the past and can efficiently handle any traffic that may be available for shipment by railroad in the future."



Authority to abandon the segment was made subject to prescribed conditions for the protection of employees who may be adversely affected. In general, these conditions were similar to those imposed in the Burlington case, 257 I. C. C. 700, as reported in *Railway Age* of November 18, 1944, page 799.

**SPRINGFIELD & SOUTHWESTERN.**—Division 4 of the Interstate Commerce Commission has authorized this road to abandon as to interstate commerce its entire line from Springfield, Ill., to Curran, 7.33 miles, and to abandon operation under trackage rights over 0.37 mile of Baltimore & Ohio line at Springfield. The authorization was granted subject to a provision that 40 days be allowed for any purchaser intending to continue operation to acquire the property at its salvage value.

**UNION PACIFIC.**—Upon further consideration of this company's line abandonment authorized in Finance Docket 13799 proceedings, Division 4 of the Interstate Commerce Commission has not made a specific prescription of conditions for the protection of employees who may be adversely affected, as was requested by the Railway Labor Executives Association, but has extended for a further period of 2 years its reservation of jurisdiction in that respect.

## Railway Officers

### EXECUTIVE

**J. C. M. Dodds**, statistician of the Union Pacific at Omaha, Neb., has been promoted to assistant to the vice-president of operation, with the same headquarters.

Mr. Dodds entered railway service in September, 1907, as a clerk of the Oregon Railroad & Navigation Co., (part of the



J. C. M. Dodds

Union Pacific System), at Portland, Ore., subsequently serving in a similar capacity at Spokane, Wash. In July, 1910, when the line became the Oregon-Washington Railroad & Navigation Co., Mr. Dodds was promoted to chief clerk of the accounting

department, with headquarters at Portland, and in 1920 he was advanced to auditor of disbursements. In May, 1932, that position was abolished and Mr. Dodds was appointed chief clerk of the accounting department. In September of the same year he was promoted to assistant statistician of the Union Pacific at Omaha, and two years later he was advanced to statistician, the position he held at the time of his new appointment.

**Wilfrid McNaught Knapp**, chief traffic officer of the Central of Georgia with headquarters at Savannah, Ga., has been appointed vice-president. Mr. Knapp, a native of Atlanta, Ga., entered railroading in February, 1901, with the Clyde Charleston Fast Freight Lines, and after serving with the New York & Texas Steamship Co. from August, 1903, to September, 1904, he joined the Central of Georgia as secretary to the assistant general freight agent. After serving with the United States Railroad Administration as executive chief to regional director, southern region, from 1918 to 1920, Mr. Knapp returned to the Central of Georgia as assistant general



Wilfrid McNaught Knapp

freight agent, and was subsequently promoted to general freight agent, assistant freight traffic manager, freight traffic manager, and traffic manager successively, until January, 1937, when he was named chief traffic officer, the position he held at the time of his recent elevation to vice-president.

**Leonard B. Allen**, assistant vice-president-assistant to the president of the Chesapeake & Ohio with headquarters at Cleveland, Ohio, has been elected vice-president.

**Claude E. Peterson**, whose promotion to vice-president in charge of system passenger traffic of the Southern Pacific, with headquarters at San Francisco, Cal., was reported in the *Railway Age* of April 14, was born at Boulder Creek, Cal., on April 27, 1901, and entered railway service in 1917 as a junior clerk in the passenger department of the Southern Pacific at San Francisco. He was later advanced successively to clerk in the rate department, special clerk, assistant chief rate clerk and chief statistician. On April 1, 1937, Mr. Peterson was appointed assistant chairman of the Transcontinental Passenger Association at Chicago, and on July 1, 1938, he

returned to the Southern Pacific as assistant to the vice-president in charge of system passenger traffic, with headquarters at San Francisco. In June, 1942, he was pro-



Claude E. Peterson

moted to assistant vice-president, the position he held at the time of his new appointment.

### FINANCIAL, LEGAL AND ACCOUNTING

**A. E. Callin**, assistant general auditor of the Union Pacific at Omaha, Neb., has been promoted to senior assistant general auditor, with the same headquarters.

### OPERATING

**C. Reid**, division superintendent of the Canadian Pacific at Moose Jaw, Sask., has been transferred to the Portage division, with headquarters at Winnipeg, Man.

**Cyril Eleazer Petten**, yard agent of the Canadian National at Sydney, N. S., has been appointed assistant superintendent in charge of terminals there.

**S. L. Mapes**, engineer, maintenance of way, of the Jersey Central Lines at Jersey City, N. J., has been promoted to assistant general manager, a new position, effective May 1. **W. J. Meyer**, assistant to the general manager at Jersey City, will retire on the same date.

**T. R. Beach**, who was recently honorably discharged from the U. S. Army, has returned to his position of trainmaster of the Illinois Central at Mattoon, Ill., relieving **O. H. Zimmerman, Jr.**, who has been appointed acting trainmaster, with headquarters at Champaign, Ill., where he replaces **A. Gorman**, who has been granted a leave of absence.

**C. R. Dodson** has been appointed trainmaster of the Memphis division of the Missouri Pacific, with headquarters at Wynne, Ark., succeeding **J. A. Austin**, who has been transferred to the Louisiana-Little Rock divisions, with headquarters at Monroe, La. **P. O. Bedgood** has been appointed division trainmaster at Little Rock, Ark.

**M. M. Lesher**, superintendent of the dining car and hotel department of the Union Pacific at Los Angeles, Cal., has



# THE C.T.C. STORY IS WRITTEN

The redispatching sheet at the right is a 12-hour period from a typical 3-day study of train movements on a 160-mile operating division where the installation of Centralized Traffic Control is under consideration. The red lines show how certain trains could have advanced under C.T.C.

In the 3-day period, C.T.C. would have saved an average of 27 freight train hours a day or  $\frac{2}{3}$  of a minute per mile for the 18 freight trains operated over the division.

Redispatching of 2/312 is an excellent

example of how C.T.C. produces time savings. Because of the presence of power operated switches for passing tracks and the flexibility of C.T.C. operation, the dispatcher would be able to advance this train against opposing movements to such an extent that 2 hours and 24 minutes would be saved in reaching the destination terminal.

"Union" engineers will be glad to make similar studies for any territory for which Centralized Traffic Control is under consideration.

## UNION SWITCH & SIGNAL COMPANY

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SWISSVALE

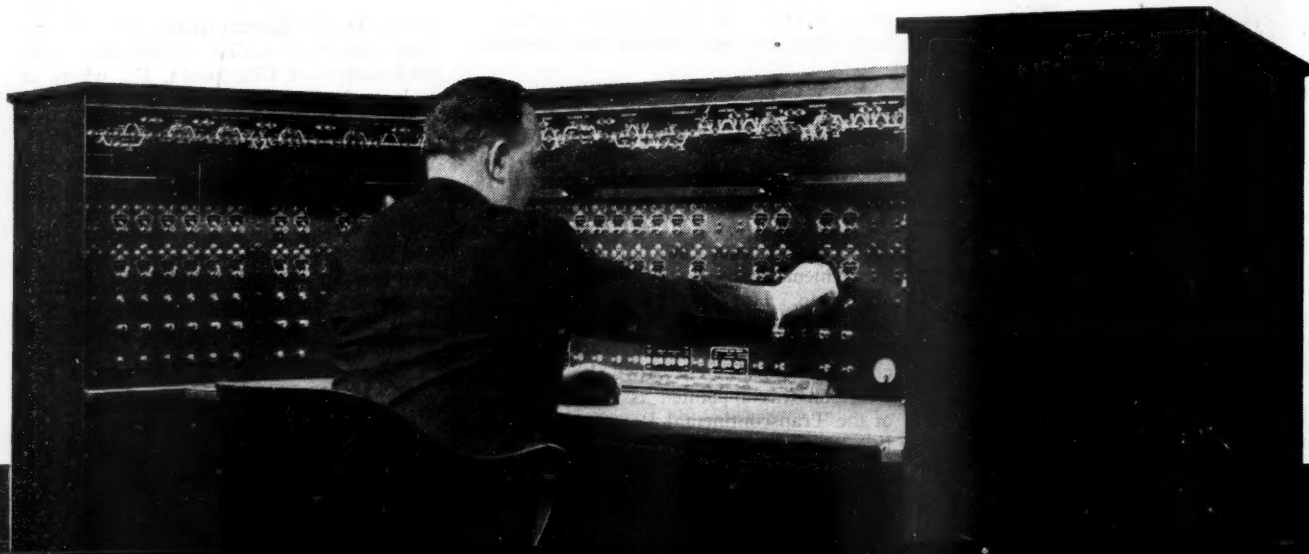
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PENNSYLVANIA

ST. LOUIS

SAN FRANCISCO



## IN THESE

**IN TERRITORY HANDLING 25 TRAINS DAILY**



### TRAIN MOVEMENT UNDER TRAIN ORDERS AND TIME TABLE OPERATION

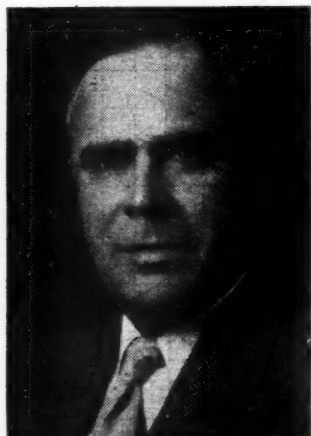
UNCHANGED WITH C.T.C. OPERATION  
CHANGED WITH C.T.C. OPERATION

\* REDISPATCHING  
BY C.T.C.

been promoted to general superintendent of the dining car and hotel department, with headquarters at Omaha, Neb. **J. L. Burns**, assistant to the manager of the dining car and hotel department at Omaha, has been advanced to superintendent of the dining car and hotel department at Los Angeles, succeeding Mr. Leshner.

**V. C. Palmer**, assistant to the general manager of the Grand Trunk Western at Detroit, Mich., has been promoted to superintendent of the Detroit division, with the same headquarters. **A. J. Clancy**, supervisor of wages, has been advanced to assistant to the general manager, with headquarters as before at Detroit, and **W. W. Byam** has been appointed supervisor of wages, replacing Mr. Clancy.

**Rollin A. Woodworth**, whose promotion to division superintendent of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Madison, Wis., was reported in the *Railway Age* of April 7, was born in Clark County, S. D., on October 28, 1889, and entered railway service on October 1, 1907, as a telegraph operator at Chicago. In 1912 he was advanced to train dispatcher, with the same headquar-



**Rollin A. Woodworth**

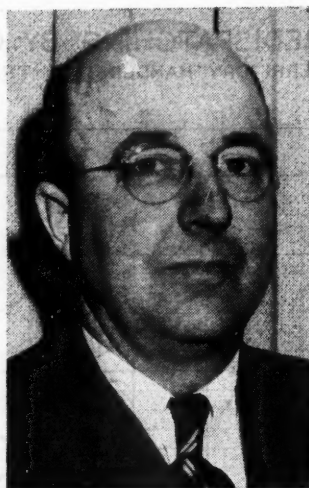
ters, becoming chief dispatcher, at Milwaukee, Wis., in May, 1923. In July, 1926, Mr. Woodworth was promoted to trainmaster, with the same headquarters, subsequently being transferred to Beloit, Wis., and Bensenville, Ill. In December, 1936, he was advanced to assistant division superintendent, with headquarters at Kansas City, Mo., and in June, 1940, he was transferred to Milwaukee, remaining in that location until his new appointment, effective April 1.

**Irvin E. Gier**, assistant superintendent of car service, eastern district, of the Union Pacific at Omaha, Neb., has been promoted to superintendent of car service with the same headquarters, succeeding **Marion M. Hinchey**, who has retired.

Mr. Gier was born at Ludlow, Mo., and in 1916 he entered railway service as a student helper of the Union Pacific at Shelby, Neb. From 1918 to 1935 he served consecutively as telegraph operator, train dispatcher and night chief dispatcher at various points of the road, being promoted to assistant trainmaster, with headquarters at Omaha in the latter year. In December, 1941, Mr. Gier was advanced to assistant to the general superintendent of transpor-

tation at Omaha, and in February of this year he was promoted to the position he held at the time of his new appointment.

Mr. Hinchey was born at Arlington, Ohio, and in 1890 he became a telegraph operator for the Toledo & Ohio Central, later serving as a train dispatcher. In



**Irvin E. Gier**

October, 1902, he entered the service of the Union Pacific as a train dispatcher at Omaha, and in January, 1912, he was advanced to night chief dispatcher. In the same year Mr. Hinchey was promoted to chief dispatcher, with headquarters at Grand Island, Neb., being transferred to Omaha in January, 1913. In November, 1917, he became assistant superintendent of the Nebraska division, and six years later he was promoted to the position he held at the time of his retirement.

**William J. Morrison**, whose promotion to general superintendent of the Union Pacific, with headquarters at Omaha, Neb., was reported in the *Railway Age* of April 7, was born at Prescott, Ariz., and on October 23, 1899, entered railway service as a telegrapher of the Denver & Rio Grande Western, serving in that capacity



**William J. Morrison**

at various points of that road until 1903. In 1905 he went with the Union Pacific as a dispatcher, returning to the D. & R. G. W., as chief dispatcher one year later. In 1910 Mr. Morrison became a dispatcher of the Southern Pacific at Oakland, Cal. and in

1913 he was transferred to Stockton, Cal. In 1915 he returned to the Union Pacific as a dispatcher at Salt Lake City, Utah, and in 1936 he was promoted to trainmaster, with the same headquarters. On April 1, 1941, he was advanced to assistant division superintendent of the Utah division, at Salt Lake City, and on August 25, 1942, he was advanced to superintendent of that division, with the same headquarters, the position he held at the time of his new appointment.

**Doss Handy**, whose promotion to superintendent of the eastern division of the Texas & Pacific, with headquarters at Ft. Worth, Tex., was reported in the *Railway Age* of April 7, was born at Roscoe, Tex., on August 5, 1906, and entered railway service on July 16, 1924, as a telegrapher of the T. & P., subsequently serving as dispatcher, agent and telegrapher, and night chief dispatcher at various points on the road. On January 10, 1938, Mr. Handy was promoted to trainmaster, with headquarters at Alexandria, La., and on August 1, 1940, he was advanced to assistant division superintendent, with the same headquarters, the position he held at the time of his new appointment.

**Raymond C. Parker**, whose promotion to general superintendent of the Texas & Pacific, with headquarters at Dallas, Tex., was reported in the *Railway Age* of April 7, was born at Chicago on August 27, 1896, and entered railway service in 1913 as a caller-messenger of the T. & P., at Dallas. From 1916 to 1925 he served consecutively as clerk of the fuel department, the stores department and the service department, and assistant service supervisor with the same headquarters. In the latter year Mr. Parker was promoted to night general yardmaster at Texarkana, Ark., and in 1928 he was advanced to general yardmaster, with the same headquarters, being transferred to Dallas in 1935. On September 1, 1936, he was advanced to trainmaster at Ft. Worth, Tex., and in September of the following year he was promoted to assistant to the general manager at Dallas. On December 1, 1938, Mr. Parker was appointed chief special agent, with the same headquarters and in February, 1942, he was advanced to division superintendent at Ft. Worth, the position he held at the time of his new appointment.

## TRAFFIC

**R. J. Ball** has been appointed general agent of the Missouri Pacific, with headquarters at Brownsville, Tex.

**H. A. Doherty** has been appointed general agent of the Natchez & Southern, with headquarters at Natchez, Miss., succeeding **R. A. Klein**, who died recently.

**William J. Fillingim**, general traffic agent of the New York, New Haven & Hartford at Boston, Mass., has been appointed foreign traffic manager with the same headquarters.

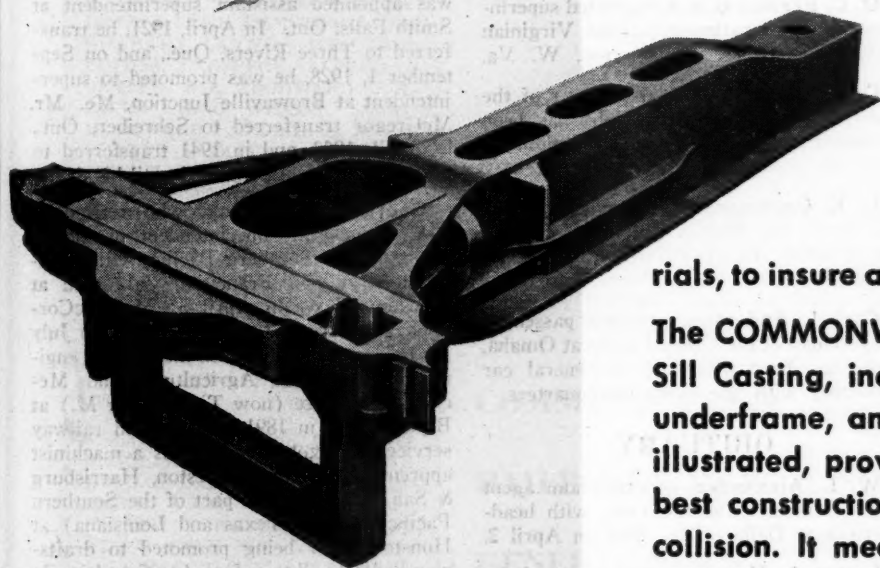
**Walter F. Schnaak**, traveling freight agent of the New York Central at Chicago, has been promoted to general agent of the Indiana Harbor Belt (part of the New York Central System), with head-



# COMMONWEALTH One-Piece Platform Center Sill Castings —



## — Assure Strong, Safe Passenger Cars



**T**HE introduction of high-speed, modern, lighter weight passenger trains has necessitated important changes in the construction of passenger cars, both in design and materials, to insure adequate strength with less weight.

The COMMONWEALTH cast steel Platform Center Sill Casting, incorporated at each end of the car underframe, and connected to the center sill, as illustrated, provides the simplest, strongest, and best construction, minimizing damage to cars in collision. It meets all required safety standards and achieves *great strength without an increase in weight.*

COMMONWEALTH Underframe End Castings are also provided with the body bolster cast integral and, if desired, can be arranged for Buffering Device.



# GENERAL STEEL CASTINGS

EDDYSTONE, PA. • GRANITE CITY, ILL.

quarters at San Francisco, Cal., succeeding **John E. Lonn**, who has been transferred to the foreign department of the N. Y. C., at Chicago.

**John T. Hall**, assistant general agent of the Chicago & North Western at Cincinnati, Ohio, has been promoted to general agent, with the same headquarters, succeeding **Lester A. Uvaas**, whose recent death is reported elsewhere in this issue.

**Howard W. Talmadge**, assistant general freight agent of the Southern at Atlanta, Ga., has been promoted to assistant general freight agent of the Southern, and general freight agent of the New Orleans Terminal Company, with headquarters at New Orleans, La.

## ENGINEERING & SIGNALING

**Edward W. G. Chapman**, superintendent of terminals of the Canadian National at Sydney, N. S., has been appointed engineer, maintenance of way, of the Atlantic region with headquarters at Moncton, N. B. Mr. Chapman, who was born at Dartmouth, N. S., on September 17, 1890, received his B. S. degree from Nova Scotia Technical College in 1914, and entered



Edward W. G. Chapman

railroading in July of that year as a transitman in the engineering department of the Canadian Government Railways (now the Canadian National) at Truro, N. S. In January, 1916, he enlisted for overseas military service in the first world war, returning to Truro as transitman in June, 1919. He served as rodman from May, 1921, to June, 1923, when he became instrumentman at New Glasgow, where he remained until his appointment as division engineer at Edmundston, N. B., in November, 1927. Mr. Chapman was named assistant operating superintendent in December, 1941, and in May, 1943, he was advanced to superintendent of terminals at Sydney, the position held at the time of his recent appointment as engineer, maintenance of way.

**Ernest R. Logie**, engineer, maintenance of way, central region of the Canadian National at Toronto, Ont., has been appointed chief engineer of that region with the same headquarters, succeeding Barton Wheelwright, whose promotion to chief engineer (operating) of the system was

announced in the *Railway Age* of April 14. **Horace Waldo Flemming**, district engineer of the Southern Ontario district at Toronto, has been named engineer, maintenance of way, central region with the same headquarters, succeeding Mr. Logie. A photograph of Mr. Flemming and a biographical sketch of his railway career appeared on page 139 of the *Railway Age* of July 15, 1943. **G. K. Fraser**, division engineer of the Belleville division at Belleville, Ont., has been promoted to district engineer at Toronto succeeding Mr. Flemming, and **A. V. Johnston**, division engineer at Hornepayne, Ont., has been transferred to Belleville, replacing Mr. Fraser. **J. E. Dumontier**, division engineer of the Laurentian division at Quebec, Que., has been transferred to the Levis division at Levis, Que., and **G. Sawyer** has been appointed acting division engineer at Quebec relieving Mr. Dumontier.

**H. M. Booth**, division engineer of the St. Louis-San Francisco, with headquarters at Ft. Scott, Kan., has been transferred to Springfield, Mo., succeeding **E. L. Anderson**, whose promotion to assistant to the general manager, with headquarters at Springfield was reported in the *Railway Age* of January 27.

**T. E. MacMannis**, division engineer of the Jersey Central Lines at Jersey City, N. J., has been appointed engineer, maintenance of way, with the same headquarters, effective May 1, succeeding **S. L. Mapes**, whose promotion to assistant general manager is announced elsewhere in these columns.

## MECHANICAL

**O. C. Fariss** has been appointed superintendent, car department, of the Virginian with headquarters at Princeton, W. Va.

**C. P. Kahler**, electrical engineer of the Union Pacific at Omaha, Neb., has been promoted to general electrical engineer, with the same headquarters.

**L. E. Crevasse**, superintendent, motive power, of the Macon, Dublin & Savannah at Macon, Ga., has resigned because of ill health.

**Carl J. Anderson**, assistant passenger car foreman of the Union Pacific at Omaha, Neb., has been promoted to general car inspector, with the same headquarters.

## OBITUARY

**W. L. Alexander**, general claim agent of the Missouri-Kansas-Texas, with headquarters at Dallas, Tex., died on April 2.

**Lester A. Uvaas**, general agent of the Chicago & North Western, with headquarters at Cincinnati, Ohio, died in that city recently.

**Thomas J. Ward**, who retired in 1944 as general supervisor of terminals of the Baltimore & Ohio at Baltimore, Md., died at Baltimore on April 10. Mr. Ward was born at Lafayette, Ohio, on September 27, 1877, and joined the Baltimore & Ohio in April, 1899, as freight brakeman at Cleveland, Ohio, thereafter serving successively as freight conductor, yard conductor, and

assistant yardmaster at that location. Mr. Ward was appointed safety agent to federal manager, eastern lines, on September 1, 1918, becoming trainmaster at Connellsville, Pa., in December of that year. In February, 1919, he was named assistant trainmaster at Connellsville, and in June, 1922, was appointed general yardmaster. Mr. Ward became district supervisor of terminals at Baltimore in June, 1923, and in February, 1944, he was promoted to general supervisor of terminals there, the position he held at the time of his retirement.

**L. W. Berry**, who retired in 1943 as general agent (traffic) of the New York & Long Branch at Long Branch, N. J., died at Asbury Park, N. J., on March 29. He was 83 years old.

**Edward G. Wright**, who retired in 1944 as a superintendent of the Michigan Central (an affiliate of the New York Central System) with headquarters at Jackson, Mich., died at Erie, Pa., on March 28. He was 51 years old.

**Charles James McGregor**, superintendent of the Canadian Pacific at Toronto, Ont., died there on April 11. Mr. McGregor, who was born on October 21, 1885, at Lachute, Que., entered railroad service in August, 1904, as a clerk in the car accounting office of the Canadian Pacific at Montreal, Que., and transferred to the car service department there in December, 1905. On May 1, 1911, he was named passenger equipment clerk in the transportation office, and four years later he became assistant chief clerk. He served as passenger car distributor at Montreal from October 1, 1916, to September 14, 1919, when he was appointed assistant superintendent at Smith Falls, Ont. In April, 1921, he transferred to Three Rivers, Que., and on September 1, 1928, he was promoted to superintendent at Brownville Junction, Me. Mr. McGregor transferred to Schreiber, Ont., in April, 1933, and in 1941 transferred to Toronto, where he remained until his death.

**George McCormick**, who retired in 1942 as general superintendent of motive power of the Southern Pacific, with headquarters at San Francisco, Cal., died at Houston, Tex., on April 5. Mr. McCormick was born at Columbus, Tex., on July 15, 1872, and graduated in mechanical engineering from the Agricultural and Mechanical College (now Texas A. & M.) at Bryan, Tex., in 1891. He entered railway service on October 5, 1891, as a machinist apprentice with the Galveston, Harrisburg & San Antonio (now part of the Southern Pacific Lines in Texas and Louisiana) at Houston, later being promoted to draftsman in 1893 and transferred to San Antonio in 1894. He returned to Houston in 1895 as chief draftsman. In 1900 he was promoted to mechanical engineer and in December, 1911, he was advanced to assistant superintendent of the El Paso division, with headquarters at El Paso, Tex. In February, 1913, Mr. McCormick was promoted to assistant general manager (mechanical) of the Southern Pacific, Texas lines, with headquarters at Houston and in December, 1916, he was advanced to the position he held at the time of his retirement.